19-10

2000 URBAN WATER MANAGEMENT PLAN FOR IMPERIAL IRRIGATION DISTRICT AND THE CITIES OF BRAWLEY, CALEXICO, AND EL CENTRO

Final October 2001

Imperial Irrigation District
Technical Resources and Planning

ACKNOWLEDGMENTS

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1.0 INTRODUCTION

The *2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro* (Management Plan) was prepared by the Imperial Irrigation District for the Imperial Irrigation District, City of Brawley, City of Calexico, and the City of El Centro as mandated by the California Urban Water Management Planning Act (Water Code Section 10610, et seq.). Urban water management plans describe current urban water use and specify measures that conserve and efficiently use urban water supplies. The California Urban Water Management Planning Act requires both public and privately owned water suppliers providing water for municipal purposes either directly or indirectly to adopt an urban water management plan every five years if they (1) provide water to more than 3,000 customers for municipal purposes or (2) supply more than 3,000 acre-feet of water annually for municipal purposes. As an indirect supplier of water for urban use in quantities greater than 3,000 acre-feet per year to retailers with a combined customer base of more than 3,000 customers, the Imperial Irrigation District is required to prepare an urban water management plan. Less than two percent of the Imperial Irrigation District's untreated water is ultimately used for urban purposes and is provided indirectly to consumers through a variety of public and private treatment agencies.

Cities within the Imperial Irrigation District's water service area that supply more than 3,000 acre-feet of water per year for urban water use are Brawley, Calexico, Calipatria, and El Centro. The other cities and unincorporated communities located in the Imperial Irrigation District's water service area, during 1995 to 2000, did not provide water to more than 3,000 customers for municipal purposes or supply more than 3,000 acre-feet of water annually for municipal purposes.

The City of Calipatria receives treated water service from the Southern California Water Company. Southern California Water Company has submitted an urban water management plan for the Cities of Calipatria and Niland. The *2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro* (Management Plan) addresses specifics within the domains of Imperial Irrigation District, City of Brawley, City of Calexico, and City of El Centro.

2.0 AGENCY COORDINATION / PUBLIC PARTICIPATION

The Management Plan was prepared by the Imperial Irrigation District in cooperation with the City of Brawley, City of Calexico, and the City of El Centro. A kick-off meeting and Department of Water Resources workshop for Urban Water Management Planning Act compliance was held May 26, 1999 for staff from the Imperial Irrigation District, Imperial County, and the cities of Brawley, Calexico, Calipatria, and El Centro. Staff from Imperial Irrigation District, Imperial County, and the cities of Brawley, Calexico, and El Centro met in February and March 2000 to coordinate definitions, information, and data. During 2000, staffs from the Imperial Irrigation District and the cities of Brawley, Calexico, and El Centro met individually to review and coordinate data. David Inouye with the Department of Water Resources met with the Imperial Irrigation District Board of Directors on June 20, 2000 to discuss and explain aspects of the Urban Water Management Planning Act and compliance.

Drafts of the Management Plan were distributed to Imperial Irrigation District and the cities of Brawley, Calexico, and El Centro for review and revisions. The final draft was distributed in August 2001 to Imperial Irrigation District and the cities of Brawley, Calexico, and El Centro, and Imperial County staff for agency comments and recommendations. Comments and recommendations were incorporated into the Management Plan. Copies of the Management Plan were distributed to Imperial County Planning/Building and Public Works Departments; Imperial Irrigation District's Public Affairs; cities of Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland; the public libraries of Brawley, Calexico, El Centro, and Imperial; and to others on request for public review.

Public notice was given declaring the availability of the Management Plan for public inspection and stating the public hearing date and time. Appendix C includes copies of public notices. A public hearing for the Management Plan was held by the Imperial Irrigation District Board of Directors (Board). Appendix E includes copies of the public comments received regarding the Management Plan and agency responses to the comments. Appendix F includes resolutions, approvals, and meeting minutes. The final Management Plan will be issued after the Board public hearing. Other public hearings may be held by the cities of Brawley, Calexico, and El

Centro. The final Management Plan will be distributed to the cities of Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland; Imperial County Planning/Building and Public Works Departments; Imperial Irrigation District's Public Affairs; public libraries in the cities of Brawley, Calexico, El Centro, and Imperial; and to others on request.

Appendix A contains copies of meeting agendas. Appendix B contains distribution information for the final draft plan. Appendix D contains Board/Council/Public Hearing Presentations. Appendix G contains pending approval processes information.

Table 2.1

Agency Coordination / Public Participation

	Coordination (Check all actions used)					
	Assisted with plan information and data	**Contacted for participation or assistance**	**Received draft plans and/or final plan**	**Received comments on draft plans**	**Attended plan coordination meetings**	**Publish or Receive public notices for draft plan/ public meeting / plan approval**
Wholesaler – Imperial Irrigation District	X	X	X	X	X	X
Retailers – Brawley, Calexico, and El Centro	X	X	X	X	X	X
Retailer – City of Calipatria		X	X		X	
Retailer – City of Imperial, Holtville, and Westmorland			X			X
Imperial County	X	X	X	X	X	X
Public Library			X			
Imperial Valley Press						X
General Public			X[1]			

[1]Upon Request

3.0 SERVICE AREA

3.1 LOCATION

Imperial County is located in the southeast corner of California. It is bordered on the west by San Diego County, on the north by Riverside County, on the east by the Colorado River which forms the Arizona boundary, and on the south by 84 miles of the International Boundary with the Republic of Mexico. The Imperial County encompasses an area of 4,597 square miles or 2,942,080 acres.

Approximately fifty percent of lands in Imperial County are undeveloped and under federal ownership and jurisdiction. One-fifth of the nearly 3 million acres in Imperial County are irrigated for agricultural purposes, most notably the central area known as Imperial Valley. The Imperial Valley irrigated agriculture consists of 512,163 acres (Imperial County General Plan, 1998, Overview p. 7). The developed area, where Imperial County's incorporated cities, unincorporated communities, and supporting facilities are situated, comprises less than one percent of the land. Approximately seven percent of Imperial County is within the boundaries of the Salton Sea.

The Imperial Valley is located in Imperial County. The Imperial Valley area is in the south-central part of Imperial County, and is bounded by Mexico on the south, the Algodones Sand Hills on the east, the Salton Sea on the north, San Diego County on the northwest, and the alluvial fans bordering the Coyote Mountains and the Yuha Desert on the Southwest. The Imperial Valley Area encompasses 989,450 acres (U.S. Department of Agriculture Soil Conservation Service, 1981, p. 1).

The Imperial Irrigation District's irrigation service area lying entirely within Imperial County is divided into four units: Imperial, West Mesa, East Mesa, and Pilot Knob, with a gross acreage of 1,061,637 acres.

The Management Plan's water supplier service area is located within the Imperial Valley and is defined as the Imperial Unit of the Imperial Irrigation District's Irrigation Service Area (Imperial Unit). The Imperial Unit includes the urban areas for the cities of Brawley, Calexico, and El Centro and part of Imperial County's unincorporated area. The Management Plan's water supplier service area, also known as the Imperial Unit, has a total area of 694,346 acres. See Figure 3.1.1 for Imperial Unit boundaries.

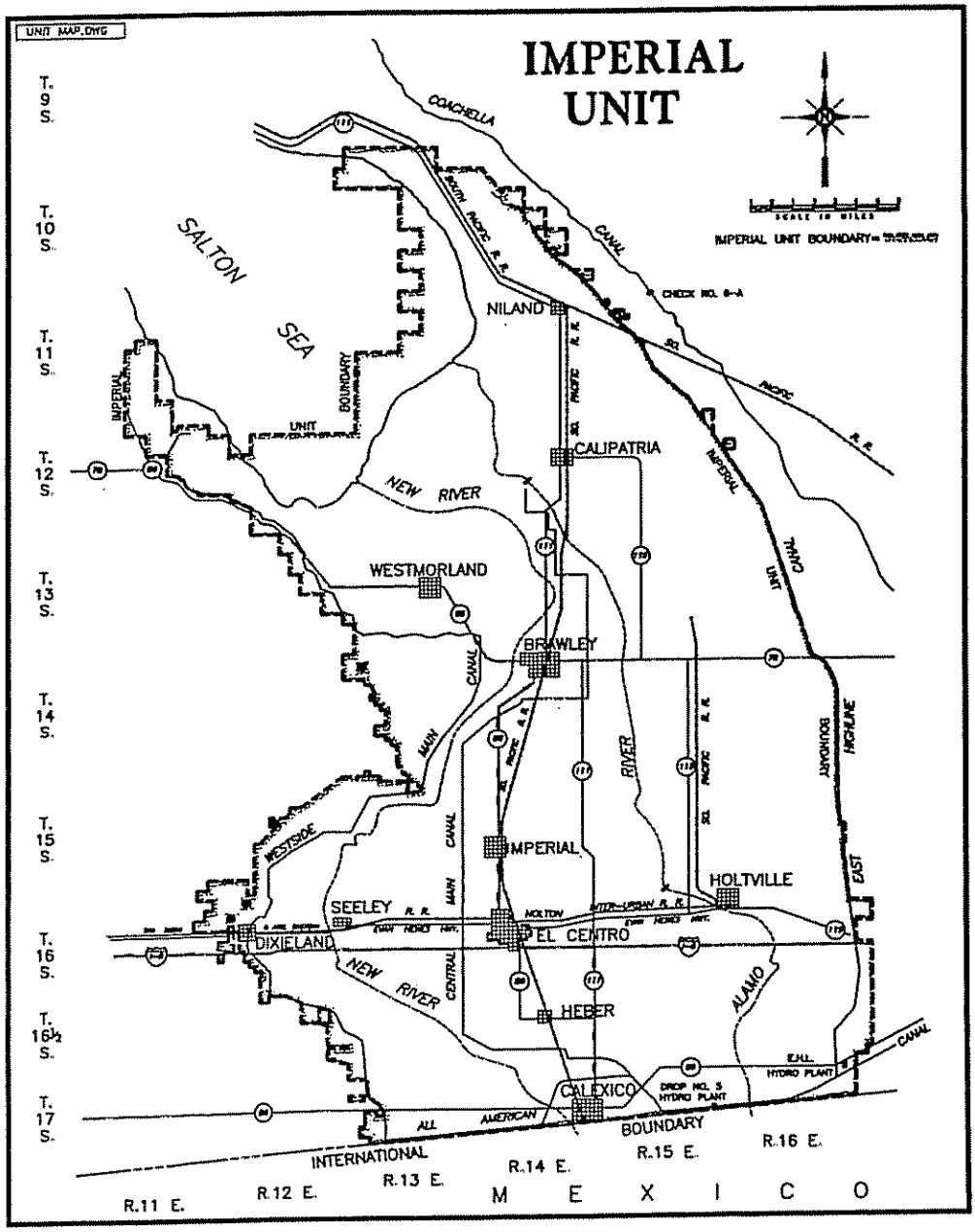

Figure 3.1.1 Imperial Unit Service Area

3.2 CLIMATE FACTORS

The Imperial County is considered an arid desert, characterized by hot, dry summers and mild winters. Summer temperatures typically exceed 100 degrees Fahrenheit and the winter low temperatures rarely drop below 32 degrees Fahrenheit. The remainder of the year has a relatively mild climate with temperatures averaging in the mid-70s. The average annual air temperature is 72 degrees Fahrenheit and the average frost-free season is about 300 days per year.

Annual rainfall in the Imperial Valley averages less than three inches, with most rainfall associated with brief but intense storms. The majority of the rainfall occurs from November through March. Periodic summer thunderstorms are common in the region.

Imperial Valley elevations range from sea level to 273 feet below sea level. The Mexican Border is located at the southern end of Imperial Valley and the elevation is sea level. The southern end of the Salton Sea is located at the northern end of Imperial Valley and the elevation is 273 feet below sea level. The relatively flat topography of the Imperial Valley and surrounding areas in conjunction with strong night and day temperature differentials, particularly in the summer months, produce moderate winds and deep thermal circulation systems. The thermal systems facilitate general dispersion of the air.

3.3 DEMOGRAPHIC FACTORS

3.3.1 Population

The Population Research Unit of the California Department of Finance (DOF) estimates annual changes in population. According to DOF's July 2001 estimates, Imperial County's 2000 unincorporated area population is 33,719 and Imperial County's total population is 146,564 (State of California Department of Finance, 2001, 2000E5Cities). This compares to the 1990 census results of 27,360 people for Imperial County's unincorporated area and 109,303 people

for Imperial County's total population. The population increase of 6,380 people is a 23 percent increase over Imperial County's 1990 unincorporated area population. The population increase of 37,261 people is a 34 percent increase over Imperial County's 1990 total population.

According to DOF's July 2001 estimates, City of Brawley's 2000 population is 22,659 with 7,016 housing units. The City of Calexico's 2000 population is 28,025 with 6,974 housing units. The City of El Centro's 2000 population is 38,962 with 12,249 housing units.

Table 3.3.1.1 Population Projections presents the Southern California Association of Government (SCAG) 1998 Regional Transportation Plan (RTP) Adopted Forecast, April 1998. Heber, Niland, and Seeley are unincorporated communities whose populations are included in the Imperial County Unincorporated Area category in Table 3.3.1.1.

Table 3.3.1.1
Population Projections[1]

	2000	2005	2010	2015	2020
Brawley	22,586	24,425	27,294	29,998	33,187
Calexico[2]	27,000	30,000	34,000	37,000	41,000
Calipatria	5,332	5,992	7,020	7,990	9,134
El Centro[3]	37,089	37,597	39,158	40,342	41,743
Holtville	5,631	5,750	5,935	6,110	6,317
Imperial	7,137	9,338	12,770	16,007	19,825
Westmorland	1,702	1,918	2,254	2,570	2,944
Imperial County Unincorporated Area	39,422	53,382	75,149	95,675	119,889
Total Service Area Population	148,980	171,472	207,307	240,812	280,341

[1] Population figures were obtained from the Southern California Association of Government (SCAG), 1998 RTP Adopted Forecast, April 1998 unless otherwise noted. These figures may vary from previous reports due to changes in estimates, projection, and populations. Niland, Seeley, and Heber are unincorporated areas whose populations are included in the Imperial County Unincorporated Area category.

[2] City of Calexico population projections.

[3] City of El Centro population projections are derived with 3 percent increases each year.

3.3.2 Land Use

The Imperial Unit is predominantly an agricultural area. Agricultural development in the Imperial Valley began at the turn of the twentieth century and now includes approximately 500,000 acres of irrigated land that support a $1 billion annual local agricultural economy. Imperial Irrigation District is the regional water supplier in Imperial County, delivering Colorado River flows to all agricultural lands and urban water retailers within its contracted water service area. The Imperial Irrigation District operates open channel gravity flow irrigation and drainage systems and continually strives to develop innovative ways to improve its operations, increase reliability, and to conserve water.

While the agriculture-based economy is expected to continue, land use will vary somewhat over the years as urbanization and growth occurs in the rural areas adjacent to existing urban areas. The developed areas within the Imperial Unit include incorporated cities, unincorporated communities, and supporting facilities. The seven incorporated cities in the Imperial Unit are Brawley, Calexico, Calipatria, El Centro, Holtville, Imperial, and Westmorland. Heber, Niland, and Seeley are unincorporated communities.

3.3.2.1 Current Land Use

Agriculture is the predominant land use in the Imperial Unit with approximately seventy percent utilized for agricultural purposes. A mild climate, year-round growing season, good soils, and a gently sloped topography combined with the strong historical Colorado River water rights make Imperial Valley one of the most productive agricultural regions in the world. Due to contractual restrictions total farmable acres have remained fairly constant over the past five years while total net acres cropped have exhibited minor fluctuations. Cropping patterns have remained relatively constant with yearly variations occurring as a result of market price fluctuations, production cost factors, and insect/disease pressures. There is a trend towards forage crops and away from vegetable crops.

More than 120 types of crops are currently grown. In terms of acreage, the major crops within Imperial Irrigation District boundaries are alfalfa, sudan, bermuda, wheat, sugar beets, lettuce, melons, carrots, onions, and broccoli. In the Imperial Unit, the total area farmed was 488,499 acres in 1990, 481,151 acres in 1995, and 479,000 acres in 2000 (Imperial Irrigation District, 2000).

Urban land uses within the Imperial Unit consist of cities, state prisons, a military base, geothermal plants, and other smaller industrial users. Most of the urban lands are concentrated in and around the incorporated and unincorporated cities with some small clusters of rural residences located away from the population centers.

The City of Brawley is located at the intersection of Highways 86 and 78. The City of Brawley's total planning area covers approximately 15,469 acres. Land uses within Brawley's incorporated boundaries include: 823 acres for rural residential, 2,030 acres for low density residential, 592 acres for medium density residential, 1,012 acres of public facilities, 620 acres for commercial, 975 acres for industrial, 440 acres for light industrial and business, 1,206 acres of open space, 1,182 acres of transportation, and 6,589 acres for agricultural use.

The City of Brawley Urban Area has approximately 9,890 acres and surrounds the incorporated City of Brawley. The Brawley Urban Area is generally bounded on the west by the New River, Brandt Road, Kalin Road, Poe Subdivision and State Highway 86; on the north by Ward Road; on the east by Best Road, the Livesely Drain, and a line approximately one-half mile east of Best Road; and on the south by the Rockwood Canal, Mead Road, the Best Canal, Dogwood Road, and Shartz Road. See Figure 3.3.2.1.1 for Brawley Urban Area.

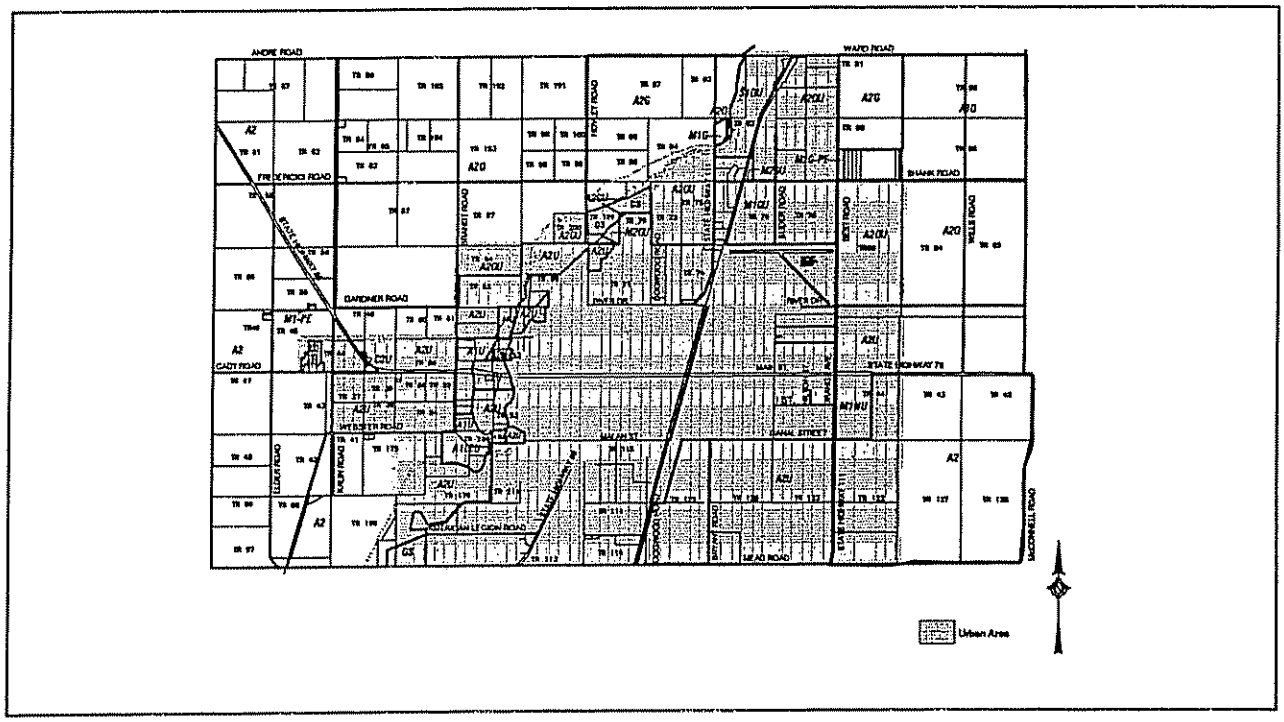

Figure 3.3.2.1.1 Brawley Urban Area

The City of Calexico is located at the southern terminus of State Route 86 along the U.S./Mexico International Border. The City of Calexico covers approximately 4.5 square miles or 2,880 acres (Calexico's planning area covers 14 square miles or 8,960 acres). Land uses within Calexico's incorporated boundaries include: 1,128 acres allocated to housing, 160 acres to commercial uses, 85 acres for industrial use, and the remaining acreage is allocated to agricultural open space use. Much of Calexico's recent growth can be attributed to the presence of the maquiladora manufacturing plants across the U.S./Mexico International Border in Mexicali, Mexico. The maquiladoras provide labor-intensive manufacturing services for U.S. based industries and are becoming more attractive to U.S. businesses trying to remain competitive in the current economic climate.

The City of Calexico Urban Area is approximately 6,980 acres and surrounds the incorporated City of Calexico. The Calexico Urban Area is generally bounded on the west by Dogwood Road; on the north by Willoughby Road and Jasper Road; on the east by Bowker Road and the designated Specific Plan Area; and on the south by the city of Mexicali and the Republic of Mexico. See Figure 3.3.2.1.2 for Calexico Urban Area.

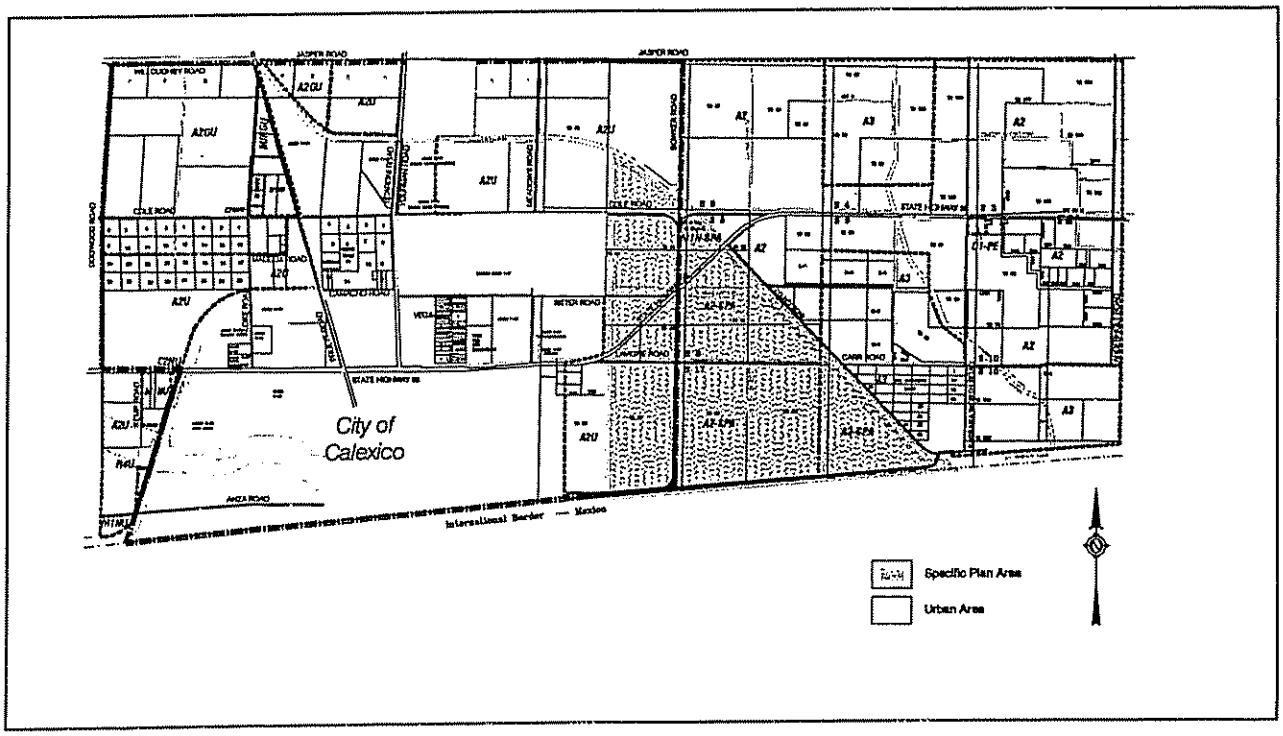

Figure 3.3.2.1.2 Calexico Urban Area

The City of El Centro is located at the intersection of Interstate 8 and Highway 86 and covers 9.2 square miles. The Imperial County seat is located in the City of El Centro. El Centro is the largest city in the county and is the principal trading center of the county. Several federal and state government offices are located in El Centro, such as the U. S. Bureau of Land Management, Federal Bureau of Investigation, U.S. Border Patrol Headquarters, Social Security Administration, U.S. Department of Agricultural, and the California Employment Development Department.

The City of El Centro Urban Area is approximately 12,800 acres and surrounds the incorporated City of El Centro. The El Centro Urban Area is generally bounded on the west by Austin Road; on the north by the Central Drain, Dogwood Road, and Villa Road; on the east by State Highway 111; and on the south by Northrup Road (extension), McCabe Road, a line approximately 1,320 feet east of Dogwood Road, and Chick Road. See Figure 3.3.2.1.3 for El Centro Urban Area.

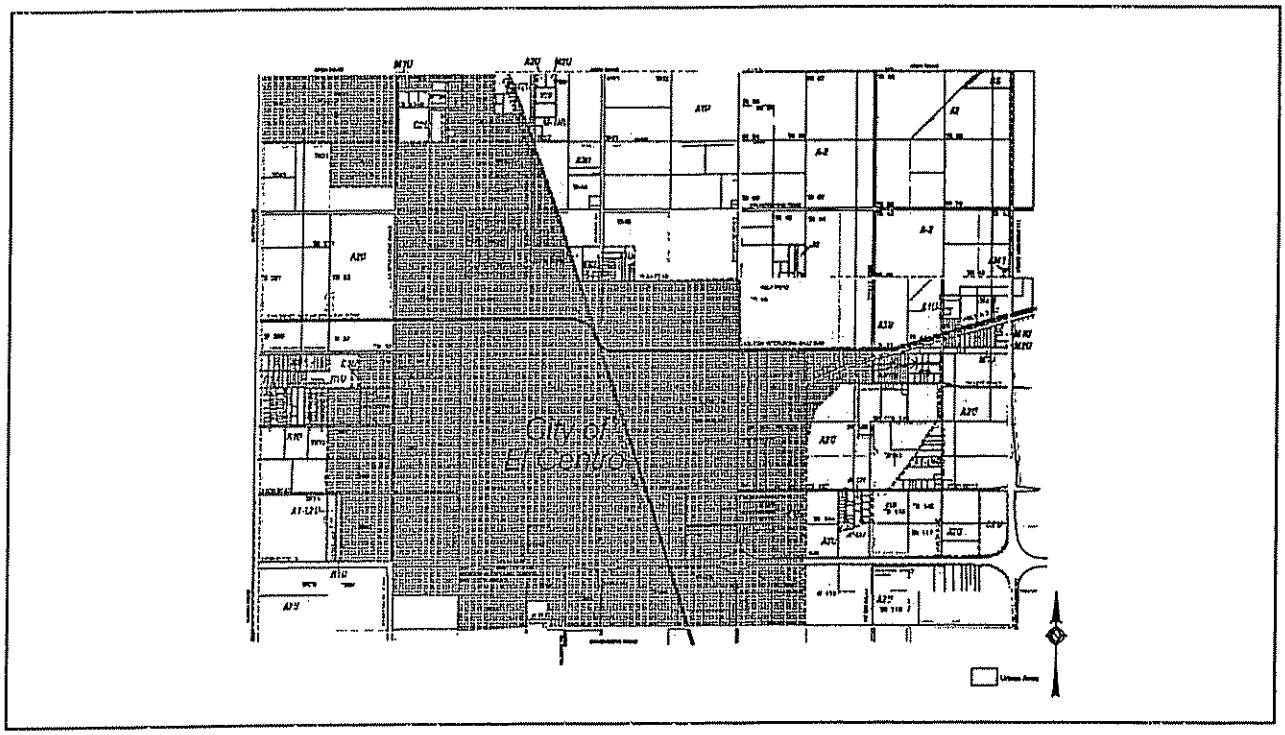

Figure 3.3.2.1.3 El Centro Urban Area

Within Imperial Irrigation District's Imperial Unit the area in cities, communities (towns), airports, cemeteries, fairgrounds, golf courses, recreation, parks, lakes, and rural schools was 18,292 acres in 1990, 25,341 acres in 1995, and 26,013 acres in 2000. Between 1990 and 2000 this combined city land use area increased 7,721 acres which is a 42 percent increase over its 1990 area. This increase in land use area, 7,721 acres, is 1.1 percent of the total Imperial Unit area. The total 26,013 acres is 3.7 percent of the total Imperial Unit area.

3.3.2.2 Future Land Use

The economy within the Imperial Unit is gradually becoming more diversified. Agriculture, however, will continue to be the primary industry within the Imperial Unit over the next twenty

years. The two principal factors that will affect the increase or reduction of crop acreage within the Imperial Unit will be urban development and the economics of the agriculture market. Over the next twenty years, urbanization is expected to slightly decrease the historically constant acreage of land devoted to agriculture.

The majority of urban development should occur in and around the ten incorporated and unincorporated cities and communities. Urban development is expected to remain concentrated near the currently established urban centers. Smaller unincorporated communities such as Niland and Seeley may experience increased development due to the expansion plans of two state prisons and the U.S. Naval Air Facility. There are now two international border crossings in the Imperial Unit, the Calexico Port of Entry and the International Port of Entry. The industrial Mexico/United States International Port of Entry, located east of Calexico, is expected to facilitate urban development within the Imperial Unit.

Undeveloped areas that are being developed or could possibly be developed include areas that surround the incorporated cities, areas that surround the unincorporated communities, and areas within Specific Plan Areas. Specific Plans are used to implement the Imperial County General Plan for large development projects such as a planned community, or to designate an area of Imperial County where further studies are needed before development. When adopted, a Specific Plan serves as an amendment to the Imperial County General Plan for a very defined and detailed area. Some of Imperial County's Specific Plan areas are adjacent to incorporated cities and unincorporated communities. Some Specific Plan areas have not completed all of their possible development.

The Imperial County 1993 General Plan identifies urban areas surrounding the incorporated cities of Calipatria with 2,880 acres, Holtville with 4,080 acres, Imperial with 8,480 acres, and Westmorland with 880 acres. Urban areas surrounding the unincorporated communities include Heber with 960 acres, Niland with 1,290 acres and Seeley with 1,520 acres. Urban areas for specific plans include: East Border Crossing Specific Plan area with 1,700 acres, Holtville Air

Strip Specific Plan area with 1,830 acres, Mesquite Lake Specific Plan area with 5,760 acres, Tamarack Canyon Ranch Specific Plan area with 1,200 acres, CM Ranch Specific Plan area with 1,790 acres, and Heber Specific Plan area with 1,660 acres. Some of these designated urban areas have been developed and some have not. Some of these areas could possibly complete developments in the future.

The total urban areas surrounding cities and communities is 49,760 acres or 7.2 percent of the Imperial Unit area. The majority of these lands are currently farmed. Six Specific Plan Areas within the Imperial Unit are designated for possible development. The total area for the six Specific Plan Areas is 13,940 acres or 2.0 percent of the Imperial Unit area. The total combined urban area surrounding cities and communities and for the six Specific Plan Areas is 63,700 acres or 9.2 percent of the Imperial Unit area.

Urban areas yet to be developed will be characterized by a full level of urban services, in particular public water and sewer systems, and will contain or propose a broad range of residential, commercial, and industrial uses. It is anticipated that most urban developments, yet to be developed, will eventually be annexed or incorporated into existing cities, and provide the full range of public infrastructure normally associated with municipalities such as public sewer and water, drainage improvements, street lights, fire hydrants, and fully improved paved streets with curbs and sidewalks that are consistent with city standards.

Trends in land use point to an increase in the development of existing urban areas to provide for larger residential capacity and increased population. With an increase in the development of existing urban areas, there will be associated increases in service and infrastructure. The total urban land use in the years 2000 through 2020 will remain small in comparison to agriculture land use within the Imperial Unit.

4.0 WATER SUPPLY

The Imperial Unit depends solely on the Colorado River for surface water inflows. The Imperial Irrigation District imports raw Colorado River water and distributes it primarily for agricultural purposes. The Imperial Irrigation District also delivers untreated flows for municipal and industrial uses. Municipal and/or industrial users treat the raw water to meet state and federal drinking water standards before distribution to urban users.

Rainfall is less than three inches per year and does not contribute to Imperial Irrigation District's water supply, although at times it may reduce agricultural water demand. The groundwater in the Imperial Unit is of poor quality and is generally unsuitable for domestic or irrigation use.

The Imperial Irrigation District was formed in 1911 to acquire properties of the bankrupt California Development Company and its Mexican subsidiary. By 1922, the Imperial Irrigation District had acquired 13 mutual water companies, which had developed and operated distribution canals in the Imperial Valley. By the mid-1920s, the Imperial Irrigation District was delivering water to nearly 500,000 acres. Since 1942, water has been diverted at Imperial Dam on the Colorado River through the All-American Canal, both of which the Imperial Irrigation District operates and maintains.

The Imperial Irrigation District's rights to divert Colorado River water are long standing. Imperial Irrigation District holds legal titles to all its water and water rights in trust for landowners within the district (California Water Code §§20529 and 22437; Bryant v. Yellen, 447 U.S. 352, 371 (1980), fn.23.). Beginning in 1885 a number of individuals, as well as the California Development Company, made a series of appropriations of Colorado River water under California law for use in the Imperial Valley. Pursuant to then-existing California laws, these appropriations were initiated by the posting of public notices for 10,000 cfs each at the point of diversion and recording such notices in the office of the county recorder. The individual appropriations were subsequently assigned to the California Development Company, whose entire assets, including its water rights, were later bought by the Southern Pacific Company.

After the Imperial Irrigation District was formed in 1911, the Southern Pacific Company conveyed all of its water rights to the Imperial Irrigation District on June 22, 1916.

The Imperial Irrigation District's predecessor right holders made reasonable progress in putting their pre-1914 appropriative water rights to beneficial use. By 1929, 424,145 acres of the Imperial Valley were under irrigation. Had the Imperial Irrigation District not subsequently modified its pre-1914 appropriative rights, the Imperial Irrigation District would have perfected its pre-1914 appropriative water right at over 7 million acre-feet annually.

Subsequently, in 1921 representatives from the seven Colorado River basin states, with the authorization of their legislatures and at the urging of the Federal government, began negotiations regarding the distribution of waters from the Colorado River. In November of 1922, the representatives from the upper (Colorado, New Mexico, Utah and Wyoming) and lower (Arizona, California, and Nevada) basin states signed the Colorado River Compact (Compact), an interstate agreement giving each basin perpetual rights to annual apportionments of 7.5 million acre-feet of Colorado River water annually.

The Compact was made effective by provisions in the 1928 Boulder Canyon Project Act (45 Statute 1056), which authorized the construction of Hoover Dam and the All-American Canal and served as the United States' consent to accept the Compact. Officially enacted on June 25, 1929 through a Presidential Proclamation, this act resulted in the ratification of the Compact by six of the basin states and also required California to limit its annual consumptive use to 4.4 million acre-feet of the lower basin's apportionment, plus not less than half of any excess or surplus water unapportioned by the Compact. Arizona refused to sign and subsequently filed a lawsuit. California abided by this federal mandate through the implementation of its 1929 Limitation Act. The Boulder Canyon Project Act moreover authorized the Secretary of the Interior (Secretary) to "contract for the storage of water . . . and for the delivery thereof . . . for irrigation and domestic uses", and further defined the lower basin's apportionment split by allocating 0.3 million acre-feet of water to Nevada and 2.8 million acre-feet of water to Arizona. While the three states never formally accepted or agreed to these terms, a 1964 Supreme Court

decision *(Arizona vs. California, 373 U.S. 546)* declared their consent to be inconsequential since the Boulder Canyon Project Act was authorized by the Secretary.

Following the implementation of the Boulder Canyon Project Act, the Secretary requested California make recommendations regarding the distribution of its allocation of Colorado River water. In August of 1931, under the direction of the Chairmanship of the State Engineer, the California Seven-Party Agreement was developed and authorized by the affected parties in order to prioritize California water rights. The Secretary accepted this recommendation agreement and established these priorities (as shown in Table 4.0.1) through General Regulations issued in September of 1931. The first four priority allocations account for California's 4.4 million acre-feet allotment, with agricultural entities utilizing 3.85 million acre-feet of that total. The remaining priorities are defined for years in which the Secretary declares that excess waters are available. Finally, it should also be noted that a 1944 treaty entitles Mexico to an annual apportionment of 1.5 million acre-feet of Colorado River water and additional 200,000 acre-feet in years that excess water is available.

Pursuant to the provisions of the Boulder Canyon Project Act adopted in 1929, the California Limitation Act (Act of March 4, 1929; Chapter 16, 48th Session; Statutes and Amendments to the Codes, 1929, p.38-39.), and the Secretary's contracts, California was apportioned an annual 4.4 million acre-feet out of the lower basin allocation of 7.5 million acre-feet annually, plus 50% of any available surplus water. The further apportionment of California's share of Colorado River water was made by the Secretary of the Interior by entering into contracts with California water right holders. On December 1, 1932 the Secretary, acting on behalf of the United States, executed a contract with Imperial Irrigation District to deliver Colorado River water.

Table 4.0.1
California Colorado River Annual Water Right Priorities

Priority Order	User	Apportionment	Present Perfected Rights
1.	Palo Verde Irrigation District (for use exclusively upon 104,500 acres of Valley land in, and adjoining district)	3,850,000 AF	219,790 AF (or the consumptive use of 33,604 acres)
2.	Yuma Project (for use on California Division, not exceeding 25,000 acres of land)		38,270 AF (or the consumptive use of 6,294 acres)
3a.	Imperial Irrigation District (lands served by All-American Canal in Imperial and Coachella Valleys)		2,600,000 AF (Imperial Irrigation District only) (or the consumptive use of 424,145 acres)
3b.	Palo Verde Irrigation District (for use exclusively on an additional 16,000 acres of mesa lands)		
4.	Metropolitan Water District (for use on the Southern California Coastal Plain)	550,000 AF	
	Subtotal: [California's Limit (not including surplus waters) of Colorado River Water as per the Boulder Canyon Project Act and the 1929 Limitation Act]	4,400,000 AF	
5a.	Metropolitan Water District (for use on the Southern California Coastal Plain)	550,000 AF	
5b.	City and County of San Diego (through MWD)	112,000 AF	
6a.	Imperial Irrigation District (lands served by All-American Canal in Imperial and Coachella Valleys)	300,000 AF	
6b.	Palo Verde Irrigation District (for use exclusively on 16,000 acres of mesa lands)		
7.	California Agricultural Use (Colorado River Basin lands in California)	all remaining available water	

The Imperial Irrigation District agreed to limit its California pre-1914 appropriative water rights in quantity and priority to the apportionments and priorities contained in the Seven-Party Agreement. Following execution of the Seven-Party Agreement, the Imperial Irrigation District filed eight California applications between 1933 and 1936 to appropriate water pursuant to the California Water Commission Act. The Imperial Irrigation District filed such applications without waiving its rights as a pre-1914 appropriator, and the applications sought rights to the same quantity of Colorado water as had been originally appropriated—over 7 million acre-feet annually. However, the applications also incorporated the terms of the Seven-Party Agreement, thus incorporating the apportionment and priority parameters of the Seven-Party Agreement into

Imperial Irrigation District's appropriative applications. Permits were granted on the applications in 1950.

At the time the Imperial Irrigation District entered into its contract with the Secretary of the Interior, it was anticipated that the lands to be served with Colorado River water in the Coachella Valley to the north would become a part of the Imperial Irrigation District. However, the Coachella farmers eventually decided that they preferred to have their own delivery contract with the Secretary, and an action was brought by the Coachella Valley Water District to protest the Imperial Irrigation District's court validation of the 1932 Imperial Irrigation District water service and repayment contract with the Secretary of the Interior. In 1934, Imperial Irrigation District and Coachella Valley Water District executed a compromise agreement which paved the way for Coachella Valley Water District to have its own contract with the Secretary provided it subordinated its Colorado River entitlement, in perpetuity, to the Imperial Irrigation District entitlement. In other words, within the third, sixth and seventh priority agricultural pool, as set forth in the Seven-Party Agreement and the various California water delivery contracts, Imperial Irrigation District's water use takes precedence over Coachella Valley Water District's use. Under the third priority Coachella Valley Water District receives water out of the annual 3.85 million acre-feet agricultural pool after water uses by Palo Verde, Yuma Project, and Imperial Irrigation District are deducted.

Both the Colorado River Compact and the Boulder Canyon Project Act contained provisions that required satisfaction of "present perfected rights", or appropriative rights acquired pursuant to state law that were in existence prior to enacting legislation. Imperial Irrigation District's water rights can be classified as two types, "present perfected" and/or "contract." The 1964 Supreme Court decree *(Arizona vs. California, 373 U.S. 546)*, in conjunction with a supplemental 1979 decree (*Arizona vs. California, 439 U.S. 419, 429)*, awarded the Imperial Irrigation District a "present perfected right" to 2.6 million acre-feet of Colorado River Water annually. This legal decision reinforced the rights to this water that the Imperial Irrigation District had previously established through appropriations based on historical usage. These present perfected rights are essential to the Imperial Irrigation District as they guarantee priority access to Colorado River

water before those without these rights (after Mexico's allotment has been satisfied). Of the Seven-Party Agreement entities, only Palo Verde Irrigation District (PVID), Imperial Irrigation District, and the Yuma Project (non-Indian portions) have present perfected rights. Imperial Irrigation District's remaining water allocations are based on "contract rights" from the December 1932 contract with the Secretary of the Interior (as modified by the 1934 Compromise Agreement with Coachella Valley Water District). Contract rights for all California entities are described in Article 17 of the 1932 Contract and in their individual contracts with the Secretary. While signatories to the 1931 Seven Party Agreement, Los Angeles, San Diego, and the County of San Diego have since merged their rights with those of the Metropolitan Water District of Southern California, who originally was granted a fourth priority 550,000 acre-feet allotment of California's 4.4 million acre-feet apportionment.

4.1 Water Supply Sources

Groundwater in the Imperial Unit is of poor quality and is unsuitable for domestic or irrigation use. Total dissolved solids (TDS) range from a few hundred to more than 10,000 milligrams per liter (mg/l). Generally, the groundwater's fluoride concentration is higher than that recommended for drinking water, while its boron concentration exceeds that recommended for certain agricultural crops.

Surface water is dependent on the inflow of irrigation water from the Colorado River and is nonpotable without treatment. There are three general categories of surface water in the Imperial Unit: freshwater, brackish water, and saline water. The freshwater (with TDS generally less than 1,000 ppm) includes all Colorado River inflows delivered by the All American Canal and other canals and laterals within Imperial Irrigation District's Service Area. Brackish water (with TDS in the range of 1,000 to 4,000 ppm) can be found within the Alamo River, New River, and the agricultural drains that discharge into these rivers or directly to the Salton Sea. The Alamo River derives nearly all of its flow from irrigation water return flows (tailwater and tile water) in the Imperial Unit. The New River derives roughly 65 percent of its volume from irrigation water

return flows from the Imperial Unit, with the remaining 35 percent is derived from drainage that flows from the Mexicali Valley across the international border.

The Imperial Irrigation District serves as the regional water supplier, importing raw Colorado River water and delivering it, untreated, to agricultural, municipal, and industrial water users within its service area. Imperial Dam, located 20 miles northeast of Yuma Arizona, serves as Imperial Irrigation District's point of diversion from the Colorado River to the All American Canal.

The Imperial Dam is 147 miles downstream from Parker Dam. It was constructed for diversion of water into the All American Canal and the Gila Gravity Main Canal. The All American Canal diverts water to the Reservation and Valley Divisions of the Yuma Project and to Imperial and Coachella Valleys. The Gila Gravity Main Canal diverts water east of the river to the North and South Gila Valleys, to the Welton-Mohawk Irrigation and Drainage District, and to the Yuma Mesa areas. All the water arriving at Imperial Dam is accounted for. Water passing Imperial Dam through the sluiceways or otherwise released to the river below Imperial Dam is normally scheduled for delivery to Mexico. Imperial Irrigation District staff are responsible for correct delivery and operational accounting for all water released at Parker Dam and delivered to agency diverters along the Colorado River and at Imperial Dam. The Imperial Dam is operated by Imperial Irrigation District staff.

The All American Canal is an 82-mile long gravity flow canal that conducts water to the Imperial Valley from the Imperial Dam. The All American Canal delivers water to three main canals, the East Highline, Central Main, and the Westside Main and hundreds of laterals. Through 1,668 miles of canals and laterals, the Imperial Irrigation District delivers water throughout the Imperial Unit. The Imperial Irrigation District has seven regulating and three interceptor reservoirs that have a total storage capacity of approximately 3,400 acre-feet of water. The reservoirs provide increased flexibility and reduce operational losses, but are not designed for long-term storage.

The Imperial Irrigation District delivers water through approximately 5,600 delivery gates for irrigation purposes and operates/maintains about 1,460 miles of drainage ditches used to collect surface runoff and subsurface drainage from the 33,600 miles of private farm tile drains. Surface runoff and flows from the tile drains enter the drainage system and ultimately outlet into the Salton Sea via the Alamo and New Rivers. The conveyance system and the off-farm drainage collection system are operated by Imperial Irrigation District, while the tile drains and tailwater discharge systems have been constructed and are operated by landowners. Table 4.1.1 shows current and projected water supplies in the Imperial Unit.

Table 4.1.1
Current and Projected Annual Water Supplies

Agency	Water Supply Source	2000	2005	2010	2015	2020
Imperial Irrigation District (IID)	Colorado River Water Rights[1]	3,296,775 AF[2]	3,100,000 AF[3]	3,100,000 AF[3]	3,100,000 AF[3]	3,100,000 AF[3]
City of Brawley	IID	2,701 MG	3,139 MG	3,942 MG	4,709 MG	5,840 MG
City of Calexico	IID	1,856 MG	1,965 MG	2,005 MG	2,101 MG	2,200 MG
City of El Centro	IID	8,586 AF	8,843 AF	9,108 AF	9,382 AF	9,663 AF
Units of Measure:	AF= Acre Feet	MG = Million Gallons				

[1] See Table 4.0.1. Imperial Irrigation District's water right is not a defined volume but rather a quantity of water to serve a defined area of land.
[2] Water Supply calculated using provisional water use data from *Diversions From Mainstream-Available Return Flow & Consumptive Use of Such Water Calendar Year 2000*, by U.S. Department of the Interior Bureau of Reclamation Lower Colorado River Operations, March 7, 2001, Provisional Water Use 2000.
[3] Voluntary cap as per the proposed Quantification Settlement Agreement (QSA) for the Colorado River.

4.2 Water Transfer and Exchange Opportunities

In 1989, the Imperial Irrigation District entered into a water conservation and transfer agreement with Metropolitan Water District of Southern California (MWD). The Imperial Irrigation District/Metropolitan Water District of Southern California Water Conservation Agreement (IID/MWD Water Conservation Agreement) now conserves approximately 108,500 acre-feet of water annually. The conserved water is transferred to MWD and its urban water users in Los Angeles, San Diego, and the surrounding areas in southern California.

In 1997, the Imperial Irrigation District and the San Diego County Water Authority (SDCWA) entered into a long-term conservation and water transfer agreement, which, if implemented, will benefit all Californians. The Imperial Irrigation District/San Diego County Water Authority Water Conservation and Transfer Agreement provides for the transfer to SDCWA of up to 200,000 acre-feet per year of water conserved within the Imperial Irrigation District service area, plus an additional optional amount of up to 100,000 acre-feet per year.

Under this agreement, the Imperial Irrigation District and its agricultural water users will conserve water and transfer the quantity conserved to SDCWA for at least 45 years. Either agency may extend the contract for another 30 years beyond the initial term. Deliveries in the first year of program implementation will total 20,000 acre-feet and increase in 20,000 acre-feet increments annually for a minimum 130,000 acre-feet transfer or up to a maximum 200,000 acre-feet transfer. SDCWA would pay an amount for the water that equals the cost of conserving the water plus an incentive to encourage participation by farmers, along with an index to adjust the cost of the water in future years based on market prices. Additionally, the water must result from 'extraordinary conservation,' not land fallowing (which is contractually prohibited as a method of conservation).

Implementation of the Imperial Irrigation District/San Diego County Water Authority water conservation and transfer is contingent upon several factors, such as the satisfactory completion of 'wheeling' (transportation and/or exchange) arrangements between San Diego County Water Authority and Metropolitan Water District of Southern California, the completion and certification of all required environmental documents, issuance of all necessary permits and approvals by state and federal authorities, environmental mitigation costs that do not exceed predefined caps outlined in the transfer agreement, and adequate farmer participation levels to ensure that at least 130,000 acre-feet of the conserved water is generated by on-farm conservation efforts. The balance of the 200,000 acre feet can be made up with Imperial Irrigation District system improvements.

In 1999 the Boards of Directors of the Imperial Irrigation District, Coachella Valley Water District, and Metropolitan Water District of Southern California approved the *Key Terms for Quantification Settlement among the State of California, Imperial Irrigation District, Coachella Irrigation District, and Metropolitan Water District of Southern California* as the basis for obtaining public input regarding a Quantification Settlement Agreement (QSA). From this input and negotiations the QSA parties are drafting a series of legal agreements that together will comprise a QSA. In general, the QSA is a proposed agreement to reallocate a portion of Colorado River water and implement certain practices during the quantification period (which could last from 35 to 75 years) as a means of resolving differences among Colorado River contractors regarding water allocations. The QSA is designed to enhance the reliability of Colorado River supplies to each of the participating agencies and provide part of the mechanism for California to limit its diversions of Colorado River water to its 4.4 million acre-feet per year apportionment. The QSA includes provisions that would:

1. Voluntarily limit the share of Colorado River water that may be diverted and put to beneficial use by Coachella Valley Water District and Imperial Irrigation District.
2. Facilitate various conservation and transfer agreements.
3. Modify existing conservation agreements to fit within the terms of the QSA.
4. Establish other conditions that must be in place before the approval of the QSA.

The quantification of agency specific diversion rights and implementation of voluntary conservation measures and water transfers/exchanges by participating agencies would result in the annual, collective transfer of water from agricultural uses, principally in the Imperial Irrigation District service area, to other participating agencies. Water conservation would be achieved through a variety of means, including on-farm and system improvement measures within the Imperial Irrigation District service area and main canal linings.

Under the QSA, Imperial Irrigation District would agree to limit its Priority 3a diversion of Colorado River water to 3.1 million acre-feet per year. This consensual limitation constitutes a forbearance of Imperial Irrigation District's right to divert, for beneficial use, up to the entire balance (after Priorities 1 and 2) of the 3.85 million acre-feet per year amount allocated in the

aggregate to Priorities 1, 2, and 3. This forbearance increases the certainty of water availability to agencies with lower priorities. Water conserved within Imperil Irrigation District's service area would be available for use by Coachella Valley Water District, Metropolitan Water District of Southern California, or San Diego County Water Authority. If the QSA is approved and implemented, portions of the Imperial Irrigation District/ Metropolitan Water District of Southern California and Imperial Irrigation District/San Diego County Water Authority water conservation and transfer agreements would be modified to reflect changes in diversion point and recipient of some of the conserved water, but the cumulative total volumes of the transfers would not be affected.

4.3 Water Use

The Imperial Irrigation District provides wholesale water service. Demand for water in the Imperial Unit service area is divided into three basic categories: agricultural, municipal, and industrial. Historically the Imperial Irrigation District has delivered 98.2 percent of its annual flows to agricultural water users, 1.2 percent to municipalities, and 0.6 percent for industrial purposes.

The seven incorporated and three unincorporated cities within the Imperial Unit each divert water from Imperial Irrigation District's canal system to their treatment facilities prior to distribution to individual water users within their municipalities.

The primary industrial water users outside the urban areas are geothermal plants, Holly Sugar Corporation, chemical and fertilizer producers, a state prison (a second state prison located in the Imperial Unit is served treated water through a private water company), and the U.S. Naval Air Facility.

The Imperial Irrigation District is not a public water system and does not supply potable drinking water. The Imperial Irrigation District does provide raw untreated canal water to small acreage and service pipe connections, some of which are rural homes without any alternative water source. In these instances, the Imperial Irrigation District has complied with state and federal Safe Drinking Water Acts (SDWA) through an exclusionary process unique to irrigation districts. The Imperial Irrigation District ensures that all rural water users (with indoor uses of canal water) also have a source of water delivered to their property for cooking and drinking purposes from a California Department of Health Services Approved Provider. Water use by the Cities of Brawley, Calexico, and El Centro are listed in Table 4.3.1.

Table 4.3.1
Municipalities Annual Water Use
(Historical and Projected)

Water Use Sectors	1995	2000	2005	2010	2015	2020
City of Brawley						
Single family residential	670.5	620.5	1,059	1,497	1,935	2,373
Multi-family residential	1,261	1,241	1,351	1,460	1,570	1,606
Commercial	101.1	97.1	192	286	381	147
Industrial	409.9	379.6	613	847	1,069	1,314
Institutional and Governmental	266.5	266.5	402	537	672	803
Brawley Total	2,709	2,605	3,615	4,626	5,626	6,570
City of Calexico						
Single family residential	923	996	1,065	1,100	1,170	1,240
Multi-family residential	230	252	270	290	310	330
Commercial	177	300	325	350	375	400
Industrial	1.0	3.0	4.0	5.0	6.0	7.0
Institutional and Governmental	81.0	84.0	87.0	89.0	90.0	91.0
Calexico Total	1,412	1,635	1,750	1,834	1,951	2,068
City of El Centro						
Single family residential	no data	1,862	1,918	1,975	2,035	2,096
Multi-family residential	no data	859	885	912	939	967
Commercial	no data	143	148	152	157	161
El Centro Total	no data	2,864	2,951	3,039	3,131	3,224

Units of Measure: Million Gallons

Raw water use by the Imperial Irrigation District is shown in Table 4.3.2. The Imperial Irrigation District's consumptive use values, listed in Table 4.3.2, include the total use of raw water in the Imperial Unit. These consumptive use values include agriculture, small acreage, service pipes, municipalities, industrial, losses and unaccounted for raw water. There is no available data that completely distinguishes between these uses of raw water.

Table 4.3.2
Imperial Irrigation District Annual Water Use
(Historical, Projected, and Water Conservation and Transfer Programs/Projects)

Water Use	1990	1995	2000	2005	2010	2015	2020
Consumptive Use[1,2,&3] (includes agricultural, service pipes, municipalities, industrial, losses, and unaccounted for)	3,054,188[1]	3,070,582[1]	3,112,951[2]	2,910,000[3]	2,722,300[3]	2,677,300[3]	2,652,3000[3]
Water Conservation & Transfers							
IID/MWD Transfer[4&5]	6,110[4]	74,570[4]	109,460[4]	110,000[5]	110,000[5]	110,000[5]	110,000[5]
IID/San Diego County Water Authority Transfer[6]	0	0	0	80,000	180,000	200,000	200,000
IID/Coachella Valley Water District Transfer[7]	0	0	0	0	20,000	45,000	70,000
AAC Lining Conservation (MWD)[8]	0	0	0	0	56,200	56,200	56,200
AAC Lining Conservation (San Luis Rey Indian Water Rights Settlement Act)[8]	0	0	0	0	11,500	11,500	11,500
Total (Acre-Feet)	3,060,298	3,145,152	3,222,411	3,100,000	3,100,000	3,100,000	3,100,000
Units of Measure: Acre-Feet							

[1] Decree accounting consumptive use data from *Compilation of Records in Accordance with Article V. of the Decree of the Supreme Court of the United States in Arizona v. California Dated March 9, 1964 for Calendar Years 1990 and 1995*, by the U.S. Department of the Interior Bureau of Reclamation Lower Colorado River Region, pp. 14-17.

[2] Estimated using provisional water use data from *Diversions from Mainstream-Available Return Flow & Consumptive use of Such Water Calendar Year 2000*, by U.S. Department of the Interior Bureau of Reclamation Lower Colorado River Operations, March 7, 2001, Provisional Water Use 2000.

[3] Voluntary cap as per the proposed Quantification Settlement Agreement (QSA) for the Colorado River, value closes "Total" to 3,100,000 acre-feet.

[4] Imperial Irrigation District All American Canal (38 Years), p. 1.

[5] *Key Terms for Quantification Settlement among the State of California, IID, CVWD, and MWD*, October 15, 1999 p. 4.

[6] *Agreement for Transfer of Conserved Water by and between Imperial Irrigation District, a California irrigation district ("IID"), and San Diego County Water Authority, a California county water authority ("Authority"), 1998*, Article 3 Quantity, p. 13. At full implementation project savings are between 130,000 and 200,000 acre-feet.

[7] *Key Terms for Quantification Settlement among the State of California, IID, CVWD, and MWD*, October 15, 1999, pp. 6 & 8.

[8] *Key Terms for Quantification Settlement among the State of California, IID, CVWD, and MWD*, October 15, 1999, pp. 10 & 11.

Water distribution systems lose water during distribution for several reasons. Specific water distribution losses depend on the type of distribution system. A piped water distribution system can lose water due to pipe failures or leaks. Open channels, ponds, reservoirs, and water basins can lose water from seepage through the soil, surface evaporation into the air, and plant consumption. An open channel, gravity flow water distribution system has operational discharges. Operational discharges are excess flows discharged from a channel into another channel or drain. Operational discharges can result from: carriage water that is required to fill and empty the reaches of sloping channels; excess water delivered to a channel to ensure

adequate and constant delivery to the water users; increases in water user flexibility for water ordering and delivery scheduling; and terminating water deliveries during rainfall events, storm runoff, and flood flows.

The Imperial Irrigation District has an open channel gravity flow water distribution system. Its water distribution system losses result from three major conditions: seepage, operational discharges, and evaporation. The Imperial Irrigation District's water distribution system losses have been reduced through the years by numerous water conservation and demand management programs and projects. The demand management programs and projects are described in detail in the Imperial Irrigation District Demand Management Section of this plan.

Table 4.3.3 list additional water uses by the Cities of Brawley, Calexico, and El Centro. For the City of Brawley, the additional water use listed is a water distribution loss. For the City of Calexico, the additional water use listed is water that is not metered and used by the city for various purposes such as street sweeping, fire department practice, flushing fire hydrants, flushing sewer lines, and broken water mains. For the City of El Centro, the additional water use listed represents the difference between the quantity of water produced at the water plant and the quantity of water billed. El Centro water system losses are minimal and most of the additional annual water use is for facilities that are not metered, such as parks. Table 4.3.4 lists the number of urban connections by customer type.

Table 4.3.3
Additional Annual Water Uses

Water Use	1990	1995	2000	2005	2010	2015	2020
City of Brawley System Loss	No data	no data	139	130	131.3	132.6	133.9
City of Calexico Not Metered	No data	150	165	175	185	200	210
City of El Centro Not Metered	No data	300	200	233	243	254	264

Units of Measure: MG = Million Gallons

Table 4.3.4 Number of Urban Connections by Customer Type						
Customer Type	1995	2000	2005	2010	2015	2020
City of Brawley						
Single family residential	no data	3,856	3,971	4,170	4,378	4,596
Multi-family residential	no data	509	524	550	577	605
Commercial & Industrial	no data	317	326	342	359	377
Brawley Total		4,682	4,821	5,062	5,314	5,578
City of Calexico						
Single family residential	4,392	4,376	4,600	4,900	5,200	5,500
Multi-family residential	392	494	512	540	580	620
Commercial	398	470	568	670	750	860
Industrial	7	2	8	10	11	13
Institutional and governmental	22	23	24	25	26	27
Calexico Total	5,211	5,365	5,712	6,145	6,567	7,020
City of El Centro						
Single family residential	6,532	6,498	6,692	6,893	7,100	7,313
Multi-family residential		298	306	316	325	325
Commercial	1,084	886	912	939	968	968
El Centro Total	7,616	7,682	7,910	8,148	8,393	8,645

4.4 Reliability Comparison

Imperial Irrigation District's present perfected and contract water rights are highly unlikely to be affected by the usual state and regional drought conditions. The water of the Colorado River is used by both the Upper Basin States (Colorado, New Mexico, Utah, and Wyoming) and the lower basin states (Arizona, California and Nevada), as well as by Mexico. Assuming drought conditions on the Colorado River, California's 4.4 million acre-feet water apportionment is not likely to be impacted due to the massive storage quantities in the Colorado River reservoir system and the structure of water priorities. Arizona's Central Arizona Project must reduce its water diversions by one million acre-feet before any other lower basin water entitlement is affected. Additionally, Imperial Irrigation District's 2.6 million acre-feet of present perfected water rights theoretically protect its water users unless changed by future legislative action.

Imperial Irrigation District holds legal titles to all its water and water rights in trust for landowners within its service area (California Water Code §§20529 and 22437; Bryant v. Yellen, 447 U.S. 352, 371 (1980), fn.23.). While groundwater in the Imperial Unit is not used for commercial or major sources of water due to the high salt content, Imperial Irrigation District's Colorado River water supply is consistent and reliable.

The selected average or normal water year for this report is 1995 as it was the median water use year from 1994 through 1998. For the purposes of this plan, the "single dry water year" term is changed to "single reduced demand water year" as Imperial Irrigation District's senior water rights are such that drought conditions have never impacted its water supply. Thus for the purpose of this plan, 1992 was selected as the "single reduced demand water year" as this year had the lowest Imperial Irrigation District water usage during the 1989 to 1998 time period. In 1992, Imperial Irrigation District's available water supply was calculated to be 3,463,992 acre-feet.

As illustrated in Table 4.0.1, Imperial Irrigation District does not have a quantified water right but instead is allotted the right to use flows within a 3.85 million acre-feet agricultural entitlement. Four agencies share this entitlement, and the right to use these flows is prioritized with the highest priority waster user diverting flows first, followed in order of priority by the other three agricultural entities. Thus, Imperial Irrigation District's third priority water right gives it the right to use whatever flows it can put to reasonable and beneficial use after diversions by the Palo Verde Irrigation District and Yuma Project Reservation Division. Coachella Valley Water District holds the last priority to this agricultural entitlement, and is legally entitled to use whatever flows remain from the 3.85 million acre-feet allotment that have not already been diverted by the first three priority holders. Thus, in any year each of the agricultural water users' available water supplies can be determined by subtracting the annual diversions of the higher priority water users from the 3.85 million acre-feet agricultural entitlement. In 1992 Imperial Irrigation District's available water supply was calculated by subtracting Palo Verde Irrigation District and Yuma Project Reservation Division diversions (386,008 acre-feet cumulatively)

from the 3.85 million acre-feet entitlement, for a 3,463,992 acre-foot supply. However, Imperial Irrigation District's 1992 consumptive use was only 2,572,659 acre-feet so the remaining 1,277,341 acre-feet of flows would have been available for Coachella Valley Water District and lower priority Colorado River contractors.

The Imperial Irrigation District's lowest water use years during the 1989 through 1998 time period, were 1991 and 1992 with 1992 being lower than 1991. The term "multiple dry water years" is changed to "multiple reduced demand water years." Historically, the most recent California drought period was from 1987 to 1992. For the ten year period from 1989 through 1998, the Imperial Irrigation District's lowest water use years were 1991, 1992, and 1993. See Table 4.4.1.

Table 4.4.1
Imperial Irrigation District
Annual Water Supply Reliability

			Multiple Reduced Demand Water Years		
	Average/Normal Water Year (1995)	Single Reduced Demand Water Year (1992)	Year 1 (1991)	Year 2 (1992)	Year 3 (1993)
Water Use[1]	3,070,582	2,572,659	2,898,963	2,572,659	2,772,148
Water Supply[2]	3,373,233	3,463,992	3,375,173	3,463,992	3,457,909
Unit of Measure is Acre-Feet					

[1] Decree accounting consumptive use from the *Compilation of Records in Accordance with Article V of the Decree of the Supreme Court of the United States in Arizona v. California Dated March 9, 1964* Calendar Years 1991, 1992, 1993, and 1995, by the U.S. Department of the Interior Bureau of Reclamation Lower Colorado Region.

[2] Water Supply calculated using data from the *Compilation of Records in Accordance with Article V of the Decree of the Supreme Court of the United States in Arizona v. California Dated March 9, 1964* Calendar Years 1991, 1992, 1993, and 1995, by the U.S. Department of the Interior Bureau of Reclamation Lower Colorado Region.

For the purposes of this report and compliance with the Urban Water Management Planning Act, three years were selected to estimate a minimum annual water supply. The selected three years are 2001, 2002, and 2003. If during the years 2001, 2002, and 2003 there were a minimum water volume supply from the Colorado River, it would be 3.1 million acre-feet according to a voluntary self imposed cap proposed in the QSA.

Under a worst case water supply scenario the Imperial Irrigation District is confident that urban water users (which comprise less than two percent of its annual water deliveries) can be assured delivery of their required water supply. Due to its present perfected water rights and the relatively small water demand of non-agricultural water users, the Imperial Irrigation District would not reduce or cut back urban water deliveries even in years of reduced deliveries. Since its inception in 1911, the Imperial Irrigation District has never been denied the right to divert the amount of water it has requested for agricultural purposes and other beneficial uses.

4.5 Emergency Preparedness

Emergency actions and procedures to be taken by Imperial Irrigation District Water Department staff during an emergency or time of disaster are described in the *Emergency Preparedness Plan*. The *Emergency Preparedness Plan* includes required staffs action and procedure to respond to events that impair water operation of canals, laterals, drains, dams, and other facilities. These responses are not normal operation and maintenance activities. Generally, any occurrence that requires an immediate response is classified as an extreme event or emergency.

The *Emergency Preparedness Plan* defines the role each responsible employee will play during an emergency. Water Department staff conduct emergency and/or disaster response planning in the Water Control Center. Coordination of staffs with other departments will take place in the General Manager's conference room. All American Canal River Division staff planning will be centered in the Imperial Dam Control House. Other staffs meet and coordinate actions at designated areas.

Established actions and procedures exist for extreme events and emergencies that endanger operation of the water system. Possible emergencies/extreme events that endanger operation of the water system could include: earthquakes, storms, rain, runoff from desert washes, flooding, facility or structure damage, power outages, fire, vehicles in canals, equipment theft/vandalism,

or other disaster. The Imperial Irrigation District's water delivery and drainage systems do not totally shut down during an emergency.

The Imperial Irrigation District has conducted Emergency Preparedness Exercises in the past. Emergency preparedness exercises will be updated with the development of new emergency preparedness exercises. Water Department staffs trained and participated with the U. S. Department of the Interior Bureau of Reclamation's Tabletop Exercise for emergency preparedness.

For the cities in the Imperial Unit there is a ten-day storage holding capacity requirement. The Imperial County Office of Emergency Services requires this storage holding capacity for cities (Imperial Irrigation District, 1998, p.22).

4.6 Water Recycling and Wastewater Systems

The Imperial Irrigation District does not operate or maintain facilities for potable water recycling, wastewater generation, wastewater collection, or wastewater treatment. The Imperial Irrigation District does allow the reuse of its drainage water within the Imperial Unit service area (Imperial Irrigation District, 1998, Water Rates Schedule No. 5 Reuse of Drainage water).

The Cities of Brawley, Calexico, and El Centro each have a wastewater treatment plant. City wastewater information is listed in Tables 4.6.1 and 4.6.2. Currently there are no plans for the City of Brawley, Calexico, or El Centro to recycle their wastewater.

Table 4.6.1 Wastewater Generation and Collection					
	2000	2005	2010	2015	2020
City of Brawley					
Wastewater generated in service area	> 1,460	2,190	2,920	3,650	4,402
Wastewater collected and treated in service area	> 1,460	2,190	2,920	3,650	4,402
City of Calexico					
Wastewater generated in service area	831	922	1,213	1,104	1,195
City of El Centro					
Wastewater generated in service area	1,375	1,416	1,458	1,502	1,547
Wastewater collected and treated in service area	1,375	1,416	1,458	1,502	1,547
Units of Measure (Circle): MGY = Million Gallons per Year					

Table 4.6.2 Wastewater Treatment					
Treatment Plant Name	**Location**	**Average Daily (2000)**	**Maximum Daily (2000)**	**Planned Build-out Year**	**Planned Max. Daily Volume**
Brawley Wastewater Treatment Plant	Brawley	2.9	4.0	2000 – 2001	6.0
Unit of Measure is MGD = Million Gallons/Day					

5.0 SUPPLY AND DEMAND COMPARISON

5.1 Supply and Demand Comparison to 20 Years

Current and projected water supplies exceed current and projected water demands for municipal water users. Table 5.1.1 details supply and demand comparison for the Imperial Unit.

Table 5.1.1
Projected Supply and Demand Comparison

	2000	2005	2010	2015	2020
Imperial Irrigation District Supply Totals[1]	3,296,775[1]	3,100,000[2]	3,100,000[2]	3,100,000[2]	3,100,000[2]
Imperial Irrigation District Demand Totals[1 & 2]	3,112,951[3]	3,100,000[2]	3,100,000[2]	3,100,000[2]	3,100,000[2]
Difference	183,824	0	0	0	0

Unit of Measure is Acre-feet/Year

[1] Water supply calculated using provisional water use data from *Diversions from Mainstream – Available Return Flow and Consumptive Use of Such Water Calendar Year 2000*, by U. S Department of the interior Bureau of Reclamation Lower Colorado River Operations, March 17, 2001, Provisional Water Use 2000.

[2] Voluntary cap per the proposed Quantification Settlement Agreement (QSA) for the Colorado River. California Colorado River Annual Water Rights Priorities are listed in Table 4.0.1.

[3] Estimated using provisional water use data from *Diversions from Mainstream - Available Return Flow and Consumptive Use of Such Water Calendar Year 2000*, by U. S Department of the interior Bureau of Reclamation Lower Colorado River Operations, March 17, 2001, Provisional Water Use 2000.

5.2 Supply and Demand Comparison

Increased water demand in the Imperial Unit will be offset in future years with increased water conservation measures.

The selected average or normal water year for this report is 1995. The Imperial Irrigation District's yearly median water use volume for 1994 through 1998 is equal to 1995's volume of water. For the purposes of this plan the "single dry water year" term is changed to "single reduced demand water year."

The 1992 annual water use volume was lower than the 1991 annual water use volume. The Imperial Irrigation District's lowest water use year during the 1989 through 1998 time period, was the years 1991 and 1992. Table 5.2.1 lists the supply reliability and demand comparison for a single reduced demand water year and for multiple reduced demand water years.

Table 5.2.1 Supply Reliability and Demand Comparison					
	1995 Avg./Normal Water Year	1992 Single Reduced Demand Water Year	Multiple Reduced Demand Water Years		
			Year 1 (1991)	Year 2 (1992)	Year 3 (1993)
Imperial Irrigation District Supply Totals[1]	3,373,233	3,463,992	3,375,173	3,463,992	3,457,909
Imperial Irrigation District Demand Totals[2]	3,070,582	2,572,659	2,898,963	2,572,659	2,772,148
Difference	302,651	891,333	476,210	891,333	685,761
Unit of Measure is Acre-feet/Year					

[1] Water supply calculated using data in the *Compilation of Records in Accordance with Article V of the Decree of the Supreme Court of the United States in Arizona v. California Dated March 9, 1964*, Calendar Years 1991, 1992, 1993, and 1995 by the U. S. Department of the Interior Bureau of Reclamation Lower Colorado Region.

[2] Decree accounting consumptive use from the *Compilation of Records in Accordance with Article V of the Supreme Court of the United States in Arizona v. California Dated March 9, 1964* Calendar Years 1991, 1992, 1993, and 1995, by the U. S. Department of the Interior Bureau of Reclamation Lower Colorado Region.

6.0 URBAN WATER SHORTAGE MANAGEMENT

It is unlikely that the urban water supply of Imperial Irrigation District would ever be affected, even under shortage or drought conditions on the Colorado River. Urban water use in the Imperial Unit makes up less than two percent of the total water delivered by the Imperial Irrigation District. Under a worst case water supply scenario, the Imperial Irrigation District is confident it can meet the demands of urban water users.

Due to the high quality of the Imperial Irrigation District's water rights, Colorado River flows, and the storage facilities on the Colorado River it is highly unlikely that Imperial Irrigation District's water supply will be affected, even in dry years. See Water Supply Section, pages 15 through 20, for water right details. The entire southern California region, both urban and agricultural, would be in a severe drought emergency before the Imperial Valley's water supply is threatened. Historically, the Imperial Irrigation District has never been denied the right to divert the amount of water it has requested for agricultural irrigation and other beneficial uses.

In the event that there is a water shortage in the Lower Colorado River Basin, the Imperial Irrigation District/San Diego County Water Authority water transfer agreement states that both

agencies will share, on a pro-rata basis, any reductions in water to Imperial Irrigation District should a shortage declaration by the Secretary of the Interior for the Lower Colorado River Basin affect the Imperial Irrigation District's water conservation and transfer programs. When the amount of water in usable storage in Lake Mead is less than 15 million acre-feet and the unregulated inflow into Lake Powell is forecasted to be less than 8.8 million acre-feet, the Imperial Irrigation District and the San Diego County Water Authority have agreed to meet and confer to discuss a supplemental water transfer agreement in anticipation of the shortage.

Should operating conditions on the Colorado River indicate Imperial Irrigation District may be impacted by reductions in water deliveries, the Imperial Irrigation District will notify all of its water users by mail and will conduct an educational outreach program in conjunction with the local media and municipal water systems. The notice will request all water suppliers, and in particular residential, industrial, and commercial water users, to conserve water on a voluntary basis. Urban water suppliers will be responsible for notifying their customers and implementing their own voluntary water conservation measures and programs.

Urban water supply reductions in the Imperial Unit are not likely to occur during the next twenty years. Action stages are noted in this plan in order to comply with California's Urban Water Management Planning Act requirements and have not been approved by any of the agencies participating in this plan. Urban water supply shortage stage one is voluntary, has cut back conditions of less than 15 percent, and is estimated to provide up to 79 percent of the reduction goal for urban water suppliers. Urban water supply shortage stage two is voluntary, has cut back conditions of 15 percent to less than 25 percent, and is estimated to provide 7 to 12 percent of the reduction goal for urban water suppliers. Urban water supply shortage stage 3 is mandatory, has cut back conditions of 25 percent to less than 35 percent, and is estimated to provide the remainder of any reduction goals for urban water suppliers. Mandatory provisions to reduce individual urban consumer water use are beyond the jurisdiction of the Imperial Irrigation District. Any urban water use reductions or restrictions are the responsibility of individual urban water suppliers who treat and distribute water within the Imperial Unit. This includes

ADDENDUM TO SECTION 6.0 URBAN WATER SHORTAGE MANAGEMENT

2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro

Penalties or charges for excessive water use by individual urban consumers are beyond the jurisdiction of the Imperial Irrigation District. Any penalties or charges for excessive urban water use are the responsibility of individual urban water suppliers who treat and distribute water within the Imperial Unit. The Imperial Irrigation District has a 15-Point Water Conservation Program that assesses extra charges for excessive agricultural water use.

Less than two percent of the Imperial Irrigation District's untreated water is ultimately used for urban purposes and is provided indirectly to consumers through a variety of public and private treatment agencies. In 1999 the Imperial Irrigation District delivered approximately 98.2 percent of its annual flows to agricultural water users, 1.2 percent to municipalities, and 0.6 percent for industrial purposes. Urban water supply shortage stage one has cut back conditions of less than 15 percent, stage two has cut back conditions of 15 percent to less than 25 percent, and stage 3 has cut back condition of 25 percent to less than 35 percent. The percentages of urban supply-shortage stages would be calculated from the smaller percentage of total urban water.

During a water shortage the expense of reduced urban water sales could be offset by raising the water rate $0.14 for a 15 percent reduction, $0.24 for a 25 percent reduction, and $0.34 for a 35 percent reduction. Measures to overcome revenue and expenditure impacts could include raising the current rate or changing the rate structure. The Imperial Irrigation District continuously looks at reducing overhead. The Imperial Irrigation District currently has a reserve fund. Changes in expenditures are not anticipated.

Mechanisms to determine actual individual urban customer reductions are beyond the jurisdiction of the Imperial Irrigation District. Any urban customer mechanism to determine actual water use reductions is the responsibility of individual urban water suppliers who treat and distribute the water. A mechanism to determine actual urban water use reduction, from urban water suppliers, might include comparing water deliveries against historical water deliveries. Water delivered to urban water suppliers from Imperial Irrigation District's water system is measured.

enforcement of any policies to achieve targeted goals. The Imperial Irrigation District does not expect to enter a stage one or greater urban water shortage at any time over the next 20 years.

7.0 DEMAND MANAGEMENT MEASURES

7.1 Imperial Irrigation District Demand Management

The Imperial Irrigation District and its agricultural water users have a long history of efficient water use and agricultural based water conservation or demand management programs. The Imperial Irrigation District and its agricultural water users together have invested more than $625 million towards water conservation efforts over the past 50 years. Completed programs include concrete lining of canals and laterals, seepage recovery systems, regulating reservoirs, lateral interceptors, distribution system automation, on-farm tailwater recovery systems, 12-Hour Deliveries, non-leak gates, irrigation water management, and several operational, administrative, educational, and cooperative programs aimed at reducing operational losses and recovering discharges.

The Imperial Irrigation District is a regional water supplier, not a public water system, and currently does not sponsor urban water conservation programs. Over 98 percent of Imperial Irrigation District's water supply is delivered for agricultural purposes, so the demand management measures and best management practices described in the Urban Water Management Planning Act are not appropriate measures of Imperial Irrigation District's conservation efforts. Instead, Imperial Irrigation District has promoted large scale water conservation efforts using programs that do not negatively affect agricultural businesses, water users, or the Imperial Valley economy. Water conservation is a key component of Imperial Irrigation District's water management efforts as each unit of water conserved frees up a unit for other uses.

7.1.1 Imperial Irrigation District Water Conservation Programs and Projects

In 1940, an Imperial Valley Drainage Advisory Committee was formed with representatives of the Imperial Irrigation District, U.S. Department of Agriculture Soil Conservation Service, Farm, Credit Administration, and the University of California. The committee supervised a 10-year investigation of drainage methods and determined criteria for Imperial Valley drainage (U. S. Department of Agriculture Soil Conservation Service, University of California Agricultural Experiment Station, & Imperial Irrigation District, 1981, p. 3). From 1940 through 1994, the Imperial Irrigation District has cumulatively designed/installed an estimated 33,175 miles of on-farm tile drainage (Imperial Irrigation District, 1990, pp. 25-26).

In 1947, seepage recovery Drain No. 2 was installed along the All American Canal. Each year approximately 11,400 acre-feet (1964 through 1994 annual average) of water is returned to the All American Canal from seepage recovery Drain No. 2. In 1948, seepage recovery Drain No. 1 was constructed along the All American Canal. Each year approximately 1,900 acre-feet (1988 through 1994 annual average) of water is returned to the All American Canal from seepage recovery Drain No. 1. Between 1951 and 1965, All American Drainage Pumps Nos. 4, 5, 6, 11 and 12 were installed. In 1989, All American Drainage Pump No. 34 was installed. Each year the amount of water returned to the All American Canal from All American Drainage Pumps Nos. 4, 5, 6, 11, 12, and 34 is approximately 10,000 acre-feet (1988 through 1994 annual average). The combined annual average water conserved from all of these All American Canal seepage recovery systems equals approximately 23,300 acre-feet of water.

The Imperial Irrigation District began a program to concrete line canals and laterals in 1954. From 1956 through 1994, the Imperial Irrigation District concrete lined approximately 3,624 miles of canal and laterals. This includes approximately: (a) 2,507 miles of privately owned and maintained head ditches, (b) 911 miles of Imperial Irrigation District owned and maintained canals and laterals, and (c) approximately 206 miles of Imperial Irrigation District owned and maintained with funding from Metropolitan Water District of Southern California canals and laterals. From 1962 through 1994, the Imperial Irrigation District cumulatively installed approximately 117 miles of drain pipelines.

Imperial Irrigation District's first telemetry system, used to remotely-control flow equipment at distant sites, was first installed in 1958. The last site added to the telemetry system was installed in 1981. The original telemetry system used land-based telephone lines to communicate with and remotely operate sites along the upper reaches of the main canal system. By 1990, the Imperial Irrigation District had automated twenty-five structures (Imperial Irrigation District, 2000, p. 77). Check structures and turnouts were automated along the All American Canal along with check structures on the upper reaches of the East Highline, Central Main, and Westside Main Canals. Automation included installing remote control equipment that provided control of the site from Imperial Headquarters. With funding from the IID/MWD Water Conservation and Transfer Program, Imperial Irrigation District's system automation was upgraded in the 1990s: a new Water Control Center was constructed; the remote-control equipment was replaced with modern control-computers, data gathering and control remote-site devices, and upgraded sensors; and the telephone lines were replaced with a radio/microwave communication network. The Imperial Irrigation District's Supervisory Control and Data Acquisition System (SCADA) includes: control-computers; communication network; remote-site data gathering and control devices, Remote Terminal Unit (RTU) or Programmable Logic Controllers (PLC); and measurement sensors.

Between 1967 and 1974, the Imperial Irrigation District constructed 12 seepage recovery pump systems involving approximately six miles of seepage recovery lines (twelve 0.5 mile sections) parallel to the East Highline Canal. Water entering these lines is pumped back into the canal for delivery to farms. The combined annual average water conserved from all of these East Highline Canal seepage recovery systems equals approximately 14,350 acre-feet of water (1967 through 1994 annual average).

The Imperial Irrigation District has constructed ten reservoirs to conserve and balance flows. The Singh Reservoir started diversions in 1976, has a storage capacity of 323 acre-feet, regulates water from the East Highline Canal, and is located next to the Vail Supply Heading. The Sheldon Reservoir started diversions in 1977, has a storage capacity of 476 acre-feet, and services the Westside Main Canal. The Sheldon Reservoir is located on the Westside Main

Canal at the intersection of the Thistle Canal Heading, Sumac Canal Heading, and Sumac Lateral 1 Heading. The Fudge Reservoir started diversions in 1982, has a storage capacity of 300 acre-feet, and is located adjacent to the Central Main Canal. The Sperber Reservoir started diversions in 1983, has a storage capacity of 470 acre-feet, and is located on the Rositas Canal at the intersection of the Rose Canal and Rubber Canal. Water from the Rositas Canal is held and released when needed into the Rose Canal or Rubber Canal. The Imperial Irrigation District completed construction and started operating the Carter Reservoir in 1988. The Carter Reservoir has a 350-acre-foot storage capacity, is located at the end of the West Side Main Canal, and is designed to conserve operational discharge from the Westside Main Canal. The Galleano Reservoir started diversions in 1991, has a storage capacity of 425 acre-feet, and is located at the end of the East Highline Canal and at the heading of the Z Lateral. The Bevins Reservoir started diversions in 1992, has a capacity of 253 acre-feet, and is located at the end of the Oasis Lateral. The Bevins Reservoir stores operational discharge from eight lateral canals in the Plum-Oasis Lateral Interceptor system that provides growers a demand delivery system where they can shut off or receive water whenever they want. The Young Reservoir started diversions in 1996, has a storage capacity of 275 acre-feet, and is located at the end of the Mulberry-D Lateral Interceptor Canal. The Young Reservoir was constructed as part of the Mulberry-D Lateral Interceptor Project that catches operational discharge at the ends of 11 lateral canals. The Russell Reservoir started diversions in 1996, has a storage capacity of 200 acre-feet, and is located on the Vail Canal. The Russell Reservoir is part of the Mulberry-D Lateral Interceptor Project. The Willey Reservoir started diversions in 1998, has a storage capacity of 300 acre-feet, and is located south of the New River opposite the end of the Vail Canal. The Willey Reservoir was constructed as part of the Trifolium Lateral Interceptor Project. The Willey Reservoir stores operational discharge from the interceptor and discharges it into the Vail Canal at the Vail Lateral 3 Heading for downstream users. In total, Imperial Irrigation District reservoirs have a storage capacity of 3,372 acre-feet. All reservoirs are automated or remotely controlled from the Water Control Center.

Administrative water conservation programs include; the 13-Point Water Conservation Program started in 1976, the 21-Point Water Conservation Program started in 1980, and the 1987 15-Point

Water Conservation Program. In July 1976, the Imperial Irrigation District supplemented its existing water conservation efforts with a stringent 13-Point Program. The overall goal of the 13-Point Program was to improve water use efficiency within the Imperial Irrigation District and reduce inflow to the Salton Sea by reducing tailwater, canal seepage and operational water. In 1979 the Imperial Irrigation District Board of Directors appointed a Water Conservation Advisory Board to make recommendations to the Imperial Irrigation District Board of Directors regarding the implementation of additional water conservation measures. In 1980, the recommendations suggested by the Water Conservation Advisory Board were reviewed and adopted by the Imperial Irrigation District Board of Directors as the 21-Point Program. The 21-Point Program supplements the original 13-Point Water Conservation Program. The 21-Point Water Conservation Program includes policies and procedures for ordering water, operating the delivery system and assessing extra charges for excessive water use. In 1987, the 15-Point Water Conservation Program replaced the 13- and 21-Point programs. The 15-Point Water Conservation Program contained aggressive policies to promote on-farm conservation, including a tailwater triple charge program.

In 1981 the Imperial Irrigation District hired personnel to staff its Water Conservation Program. The Imperial Irrigation District established a two-year irrigation scheduling demonstration program in 1981 (Imperial Irrigation District, 1981, p. 41). The Irrigation Scheduling Program continues today when requested by water users. Irrigation scheduling saves water by assisting growers in the reduction of on-farm tailwater and tilewater. In 1982, the Water Conservation Program cooperated with the Soil Conservation Service in field irrigation evaluations (Imperial Irrigation District, 1982, p. 42). An evaluation can determine the efficiency and uniformity of the irrigation on a given field. Practices can then be recommended to a cooperating grower. In 1984, a Modified Demand Irrigation Trial was started (Imperial Irrigation District, 1984, p. 42), in which water orders could be terminated up to four hours before or after the regular ending time. The Imperial Irrigation District has also implemented a series of agricultural educational programs to encourage water conservation. These programs range in complexity from public meetings to full-scale demonstration programs. An irrigation training program implemented in 1984 for growers and irrigators helped to reduce the amount of on-farm tailwater (Imperial

Irrigation District, 1984, p. 42). In 1985, the Tailwater Return Demonstration Project was started (Imperial Irrigation District, 1985, p. 41), and in 1991 this program was reinstated. Between 1991 and 1995 twenty-five tailwater return systems were developed. In 1987 and 1988 Irrigation Field Trials were conducted. The intent of the trials were to determine the effect various soil moisture conditions had on sugar beet tonnage and sugar content. The results indicated that there were no significant differences in production between the three moisture regimes (Imperial Irrigation District, 1988, p. 42).

In 1981 the Imperial Irrigation District hired personnel to staff it's Hydrilla Control Program. The Imperial Irrigation District, in cooperation with the California Department of Food and Agriculture and the United States Department of Agriculture, began a three-year study into mechanical, chemical, and biological methods of controlling the 350 miles of hydrilla clogged canals. The biological research method is the only successful eradication program to control hydrilla. In 1985, the Imperial Irrigation District started stocking its main canals with the triploid grass carp a sterile fish. The Imperial Irrigation District constructed and started operation of a fish hatchery in 1988 to produce triploid grass carp for hydrilla control. After producing the fish for more than a decade, the Imperial Irrigation District is now California's only authorized breeder and producer of the triploid grass carp, licensed by the state Department of Fish and Game.

In 1985, the Imperial Irrigation District developed an extensive *1985 Water Conservation Plan* and a *Water Conservation Plan 1985 Supplement.* In 1986 the Imperial Irrigation District completed the *Water Conservation Plan June 1986 Update* which provided an update of water conservation activities and other matters relating to the *1985 Water Conservation Plan.* The report *Imperial Irrigation District Water Conservation Progress Through December 1987* summarized potential water conservation measures, outlined programs which have been implemented, and described proposed projects.

The Imperial Irrigation District has historically provided growers with flexibility in delivery frequency and rate by generally providing water within a day of its being ordered and by allowing

growers to order almost any flow rate. The Imperial Irrigation District's only requirement was that water be taken in 24-hours increments. In 1986, an experimental 12-Hour Delivery Program was conducted for seed germination only. This program encountered problems related to computer incompatibility, vehicle and staff-hour overtime, and canal fluctuations (Imperial Irrigation District, 1986, p. 41). In 1989 this program was started again (Imperial Irrigation District, 1989, p. 33). The revised 12-Hour Delivery Program allows growers to take water deliveries in 12-hour increments during the day or night, has been successful in reducing excess delivery water, and provides "finishing" heads to assist growers in reducing their water orders.

The Imperial Irrigation District has been involved in various cooperative studies and programs, researching innovative water conservation methods. The Bureau of Reclamation and Imperial Irrigation District East Highline Seepage Study started in 1985. The purpose of the study was to evaluate the feasibility of implementing the conservation measures identified in the *Water Conservation Opportunities Special Report, Imperial Irrigation District, California* completed in 1984 by the Bureau of Reclamation. The study included seepage analysis, regulating reservoir sizing analysis, and remote sensing analysis (U.S. Department of the Interior Bureau of Reclamation, 1989, p. 2-3). The Imperial Irrigation District and the U.S. Water Conservation Laboratory of Phoenix, Arizona conducted a joint project to study the causes and effects of water level fluctuations in an open channel irrigation system. Lateral water surface fluctuations cause variability of water deliveries. Two laterals were monitored for one year during 1986 and 1987. In 1987, the Imperial Irrigation District produced a technical report for the Lateral Fluctuation Study. The goal of the study was to identify factors which cause fluctuations in flow and result in variable deliveries to water users. Variable water deliveries make it difficult for growers to effectively manage their irrigations and conserve water.

Experimental programs included the Non-Crop Irrigation Reduction Plan and Modified Irrigation. The Non-Crop Irrigation Reduction Plan reduced the amount of leaching allowed before planting the crop. This was a one year program that began in May 1991 (Imperial Irrigation District, 1990, p. 34). The Modified Irrigation Program consisted of twelve 35-acre alfalfa fields in various parts of the Valley that were not watered for 75 days during the summer

of 1991. The Imperial Irrigation District evaluated the impact on the crop versus the amount of water saved (Imperial Irrigation District, 1990, p. 35).

In December 1988, the *Agreement for the Implementation of A Water Conservation Program and Use of Conserved Water* was signed by the Imperial Irrigation District and the Metropolitan Water District of Southern California. The agreement was finalized in December 1989. The Imperial Irrigation District began construction activities to implement this water conservation program in January 1990. Metropolitan Water District of Southern California financed the construction and on-going maintenance and verification activities of water conservation projects within the Imperial Irrigation District in exchange for the temporary (35 year) use of the conserved water. The program included the construction of 15 new projects within Imperial Irrigation District's service area and two pre-program augmentation projects. From 1990 through 2000, 782,746 acre-feet of conserved water (Imperial Irrigation District, 2000, p.1) have been transferred to Metropolitan Water District of Southern California. The annual yield of this program is between 100,000 to 110,000 acre-feet of conserved water. Projects included in the this program include Carter Reservoir, South Alamo Canal Lining Phase I, Plum-Oasis Lateral Interceptor, Trifolium Lateral Interceptor, Mulberry-D Lateral Interceptor, Galleano Reservoir, South Alamo Canal Lining Phase II, Lateral Canal Lining, Vail Supply Canal Lining, Rositas Supply Canal Lining, Westside Main Canal Lining, 12-Hour Delivery, Singh Reservoir Improvements, Non-Leak Gates, Irrigation Water Management, System Automation, Additional Irrigation Water Management, Program Coordination and Verification, Alternative Projects, Pinto Wash Detention Reservoir, Westside Main Canal Seepage Recovery, and East Highline Canal Seepage Recovery.

In 1997, the Imperial Irrigation District and the San Diego County Water Authority (SDCWA) entered into a long-term conservation and water transfer agreement, which, if implemented, will benefit all Californians. The Imperial Irrigation District/San Diego County Water Authority Water Conservation and Transfer Agreement provides for the transfer to SDCWA of up to 200,000 acre-feet per year of water conserved within the Imperial Irrigation District service area, plus an additional optional amount of up to 100,000 acre-feet per year.

Under this agreement, the Imperial Irrigation District and its agricultural water users will conserve water and transfer the quantity conserved to SDCWA for at least 45 years. Either agency may extend the contract for another 30 years beyond the initial term. Deliveries in the first year of program implementation will total 20,000 acre-feet and increase in 20,000 acre-feet increments annually for a minimum 130,000 acre-feet transfer or up to a maximum 200,000 acre-feet transfer over a ten year period. SDCWA would pay an amount for the water that equals the cost of conserving the water plus an incentive to encourage participation by farmers, along with an index to adjust the cost of the water in future years based on market prices. Additionally, the water must result from 'extraordinary conservation,' not land fallowing (which is contractually prohibited as a method of conservation).

Implementation of the Imperial Irrigation District/San Diego County Water Authority water conservation and transfer is contingent upon several factors, such as the satisfactory completion of 'wheeling' (transportation and/or exchange) arrangements between San Diego County Water Authority and Metropolitan Water District of Southern California, the completion and certification of all required environmental documents, issuance of all necessary permits and approvals by state and federal authorities, environmental mitigation costs that do not exceed predefined caps outlined in the transfer agreement, and adequate farmer participation levels to ensure that at least 130,000 acre-feet of the conserved water is generated by on-farm conservation efforts.

In 1999 the Boards of Directors of the Imperial Irrigation District, Coachella Valley Water District, and Metropolitan Water District of Southern California approved the *Key Terms for Quantification Settlement among the State of California, Imperial Irrigation District, Coachella Irrigation District, and Metropolitan Water District of Southern California* as the basis for obtaining public input regarding a Quantification Settlement Agreement (QSA). From this input and negotiations the QSA parties are drafting a series of legal agreements that together will comprise a QSA. In general, the QSA is a proposed agreement to reallocate a portion of Colorado River water and implement certain practices during the quantification period (which could last from 35 to 75 years) as a means of resolving differences among Colorado River

contractors regarding water allocations. The QSA is designed to enhance the reliability of Colorado River supplies to each of the participating agencies and provide part of the mechanism for California to limit its diversions of Colorado River water to its 4.4 million acre-feet per year apportionment. The QSA includes provisions that would:

1. Voluntarily cap the share of Colorado River water that may be diverted and put to beneficial use by Coachella Valley Water District and Imperial Irrigation District.
2. Facilitate various conservation and transfer agreements.
3. Modify existing conservation agreements to fit within the terms of the QSA.
4. Establish other conditions that must be in place before the approval of the QSA.

The quantification of agency specific diversion rights and implementation of voluntary conservation measures and water transfers/exchanges by participating agencies would result in the annual, collective transfer of water from agricultural uses, principally in the Imperial Irrigation District service area, to other participating agencies. Water conservation would be achieved through a variety of means, including on-farm and system improvement measures within the Imperial Irrigation District service area and main canal linings.

Under the QSA, Imperial Irrigation District would agree to limit its Priority 3a diversion of Colorado River water to 3.1 million acre-feet per year. This consensual limitation constitutes a forbearance of Imperial Irrigation District's right to divert, for beneficial use, up to the entire balance (after Priorities 1 and 2) of the 3.85 million acre-feet per year amount allocated in the aggregate to Priorities 1, 2, and 3. This forbearance increases the certainty of water availability to agencies with lower priorities. Water conserved within Imperil Irrigation District's service area would be available for use by Coachella Valley Water District, Metropolitan Water District of Southern California, or San Diego County Water Authority. If the QSA is approved and implemented, portions of the Imperial Irrigation District/Metropolitan Water District of Southern California and Imperial Irrigation District/San Diego County Water Authority water conservation and transfer agreements would be modified to reflect changes in diversion point and recipient of

some of the conserved water, but the cumulative total volumes of the transfers would not be affected.

The Imperial Irrigation District has a long history of water conservation. Some of Imperial Irrigation District's earlier conservation projects, on-farm tile drainage and seepage recovery, were started in the 1940s. In the 1950s seepage recovery, canal and lateral concrete lining, and automation projects were completed for the water distribution system. In the 1960s drain pipelines and additional seepage-recovery projects were completed. The 1970s saw the beginning of regulating reservoir projects and administrative water conservation programs at the Imperial Irrigation District. During the 1980's new water conservation projects and programs began every year and at the end of the decade construction for the Imperial Irrigation District/Metropolitan Water District of Southern California Water Conservation and Transfer projects and programs had began. The 1990s water conservation projects and programs continue at the on-farm, regional, state, and national levels. Water conservation projects and programs will continue into the future. Table 7.1.1.1 lists Imperial Irrigation District's water conservation projects and programs.

Table 7.1.1.1
Imperial Irrigation District
Water Conservation Programs and Projects

Water Conservation Project	Year	Activity Summary
On-Farm Tile Drainage	1940 – present	IID in cooperation with USDA Soil Conservation Service designed and installed tile drainage systems to remove water and salts from the soil.
Seepage Recovery Drain No. 2	1947 – present	All American Canal water seepage returned to canal. Each year approximately 11,400 acre-feet are conserved (annual average 1964 thru 1994).
Seepage Recovery Drain No. 1	1948 – present	All American Canal water seepage returned to canal. Each year approximately 1,900 acre-feet are conserved (annual average 1988 through 1994).
Seepage Recovery Drain Pumps 4, 5, 6, 11, 12, & 34	1951 – present	All American Canal water seepage returned to canal. Each year approximately 10,000 acre-feet are conserved (total annual average 1988 through 1994).
Concrete Lined Canals & Laterals	1954 – present	Cumulatively 3,679 miles of canals, laterals, and head ditches have been lined (privately owned, IID owned, and MWD funded through 1994).

Table 7.1.1.1 Continued Imperial Irrigation District Water Conservation Programs and Projects		
Water Conservation Project	**Year**	**Activity Summary**
Automation of Water Distribution System - installation and operation	1958 – present	A telemetry system, installed in 1958, automated the structures on the upper reaches of the main canals and used telephone lines to access remote sites. In the 1990's a Supervisory Control and Data Acquisition System (SCADA) was installed that use computers and a radio/microwave communication network. A new Water Control Center was completed 1993.
Drain Pipelines	1962 – present	Cumulatively installed 117 miles of drain pipelines, 1962 through 1994.
East Highline Seepage Recovery	1967 – present	East Highline Canal water seepage returned to canal with 12 pump systems. Each year approximately 14,350 acre-feet are conserved (annual average 1967 through 1994).
East Highline Seepage Recovery	1967 – present	East Highline Canal water seepage returned to canal with 12 pump systems. Each year approximately 14,350 acre-feet are conserved (annual average 1967 through 1994).
Regulating Reservoirs – construction and operation	1976 – present	Reservoirs built and IID funded include Singh Reservoir 1976, Sheldon 1977, Fudge 1981, Sperber 1983. Reservoirs built and MWD funded include Carter Reservoir 1988, Galleano Reservoir 1991, Bevins Reservoir 1992, Young Reservoir 1996, Russell Reservoir 1996, and the Willey Reservoir 1998 (total storage capacity 3,372 acre-feet).
13-Point Water Conservation Program	1976 – 1987	Program to reduce tailwater, canal seepage, and operational water.
Water Conservation Advisory Board	1979 – present	Make additional water conservation recommendations to IID Board of Directors.
21-Point Water Conservation Program	1980 – 1987	Policies and procedures for ordering water, operating the delivery system, and assessing extra charges for excessive water use.
Water Conservation Program	1981 – present	IID hired personnel to staff its Water Conservation Program.
Irrigation Scheduling Program	1981 – present	Assist growers to reduce on-farm tailwater and tilewater.
Aquatic Weed Control	1981 – present	IID supported research to develop/built fish hatchery to produce the sterile Triploid Grass carp fish that feeds on hydrilla an aquatic weed that clogs canals and drains.
Field Irrigation Evaluations	1982	Improve Irrigation Management on-farm.
Modified Demand Irrigation Trial	1984	Water Orders could be terminated up to four hours before or after the regular ending time.
Irrigation Training Program	1984	For growers and irrigators to reduce the amount of on-farm tailwater.
IID Water Conservation Plan	1985 – 1987	Plan with yearly updates.
East Highline Canal Seepage and System Improvement Study	1985 – 1989	Cooperative water conservation study to identify water conservation opportunities. IID and U.S. Department of the Interior Bureau of Reclamation study.
Tailwater Recovery Demonstration Program/Tailwater Return Systems	1985 – 1990; 1991 – present	Five year demonstration with five tailwater return systems. Developed 25 Tailwater Return Systems from 1991 through 1995 with MWD funding.
12-Hour Delivery Program	1986; 1989 – present	Program allows water deliveries in 12-hour increments.

Table 7.1.1.1 Continued Imperial Irrigation District Water Conservation Programs and Projects		
Water Conservation Project	**Year**	**Activity Summary**
Lateral Fluctuation Study	1986, 1987	Cooperative water conservation study to identify water conservation opportunities. IID & US Water Conservation Laboratory of Phoenix, Arizona study of causes/effects of water level fluctuations for open channel irrigation system.
Irrigation Field Trials	1987, 1988	Determine effect of various soil moisture conditions on sugar beet tonnage and sugar content.
15-Point Water Conservation Program	1987 – present	This program replaced the 13-Point and 21-Point Water Conservation Programs.
IID/MWD Water Conservation and Transfer Agreement	1989 – present	Project construction took place from 1990 to 1998 and then starts 35-year water transfer period. Many water conservation studies and reports were completed during the program.
Non-Crop Irrigation Demand Reduction Program	1991 – 1992	A limit on the length of time water may be applied to flood lands not seeded for crop.
Crop Specific Modified Irrigation Program Pilot Program	1991	Evaluate removal or irrigation water from alfalfa during the period August 1 through October 15, 1991.
IID/SDCWA Water Conservation and Transfer Agreement	1995 – present	In 1995, IID and San Diego County Water Authority (SDCWA) signed an MOU to pursue a conservation and transfer agreement. In 1998, IID and SDCWA signed a water conservation and transfer agreement.
Quantification Settlement of Colorado River Water Supply Issues	1999	IID, CVWD, MWD, SDCWA, State of California, and the U.S. Bureau of Reclamation issued key terms for a quantification settlement of Colorado River water supply issues.

Note: This list of conservation programs and projects is not necessarily all-inclusive.

7.2 City of Brawley Demand Management

The City of Brawley activated the New Brawley Water Treatment Plant in June 2000. The treatment facility is designed to produce 15 million gallons per day with capabilities to expand to 30 million gallons per day. The treatment incorporates several processes including pumping, chemical injection, primary sedimentation, flocculation, filtration, and finish water storage to ensure the city is provided with a reliable supply of safe, clean drinking water. Currently the treatment facility is producing an average of 7.5 million gallons per day of potable water.

In addition, the city is moving forward toward an aggressive agenda to implement and or enhance the following programs:

- Install water meters on all industrial, commercial and residential acres.
- Develop a water conservation program.
- Identify and test all backflow assemblies.
- Develop a valve exercise and replacement program.
- Dead-end flushing program.

The water line replacement will commence in December 2001 with a budgeted amount of 5.6 million dollars. This phase will replace all existing four and 6-inch cast iron mains with an 8-inch PVC water distribution line. It is anticipated that the city will be replacing 52,929 linear feet of distribution water mains within the next three years. This will provide increased distribution pressure throughout the city and will increase fire flow volumes for fire protection.

The City of Brawley has just completed the installation of a new 16-inch PVC water main. This new distribution line will provide potable water to Poe Colonia, a rural area approximately two miles west of the city.

In addition, the sewage treatment plant will be upgraded from 3.9 million gallons per day to 6.0 million gallons per day. Construction is scheduled to begin in the first quarter of 2001. The estimated cost of this project is 7.0 million dollars. The renovations will consist of the following:

- Replacement of the facilities head works.
- Installation of a 90-foot diameter clarifier.
- Additional aeration equipment for the system lagoons.
- Renovation of the existing digesters.
- Replacement of the electrical system.
- Addition of disinfection chamber for the plant's discharge flows.

7.3 City of Calexico Demand Management

The City of Calexico has proposed a new project to improve their water treatment plant and distribution system. It is estimated that the improvements will address the City of Calexico's growth through the year 2020. The construction of: (a) six additional filters with twelve million gallon per day capacity, (b) a twelve million gallon per day densator clarifier, and (c) two 4,000 gallon per minute distribution pumps at the main treatment plant. This improvement is the second phase of a 24-inch distribution main extending from Highway 111 east to Highway 98 and from the All American Canal to the satellite pump station. The pump station includes a six million gallon treated storage reservoir. With these improvements, the City of Calexico will be able to increase available fire flows to 4,000 – 5,000 gallons per minute to allow for larger industrial and commercial growth in the northeast quadrant of the city where major developments are taking place. The estimated cost in 1999 dollars is $11,330.

The City of Calexico has completed Phase I and II of the proposed improvements to Water Treatment Plant and Distribution System. This includes construction of six additional filters with twelve million gallon per day capacity, a twelve million gallon per day densator clarifier, and two 4,000 gallon per minute distribution pumps at the main treatment plant. Pending from the anticipated improvements is Phase III which is the satellite pump station with a six million gallon treated storage reservoir, which is programmed for the next fiscal year.

Currently water meters are installed on all new construction. Most of the City of Calexico facilities are already metered but it is the City of Calexico's goal to install water meters on all of its facilities. The total water meters included in the system are approximately 5,365.

A leak detection program has yet to be implemented by the City of Calexico. It has recently been learned leak detection equipment and training is available free of charge from the California Department of Water Resources, so the City of Calexico will be pursuing this opportunity.

The City of Calexico has a water main replacement program. Water distribution system improvements completed during the last five years have enabled the City of Calexico to improve their distribution system's operating pressure. All old or deteriorating cast iron pipes have been replaced. The City of Calexico has also implemented a policy of immediately replacing leaks or broken water mains as soon as they are reported to the Water Department. It is estimated that approximately 90 percent of the distribution system is in excellent condition.

The City of Calexico adopted General Plan and Zoning Ordinances set forth the City of Calexico's water conservation program. The adopted General Plan *Open Space/Conservation Element*, provides the water conservation program in the area of water management. Water conservation policies pertaining to new construction and development are as follows:

1. All residential construction shall be required to install low-volume toilets showers and faucets.
2. New development projects should install water-conserving appliances (washing machines and dishwashers).
3. The usage of primarily drought-tolerant native plants shall be required through review and approval of landscaping plans by City of Calexico Staff.
4. Residential projects having common green areas and all commercial, manufacturing, and public projects shall be required to install automatic irrigation systems.
5. The usage of drip irrigation shall be required where feasible.
6. Alternative water conservation systems such as gray water usage in residences shall be examined and initiated if feasible.
7. New residential construction shall be pre-plumbed for reclaimed water through a dual on-site distribution system. Anticipated non-potable uses include landscaping, lawn maintenance and crop irrigation. All reclaimed water systems will be in compliance with the State of California Regional Water Quality Board guidelines and basin objectives as well as CEQA and NEPA guidelines.
8. Residential units connected to the community sewage collection system shall not use salt-based water softeners.

Landscaping requirements for new development and construction is listed in the adopted zoning ordinance section pertaining to "property improvement standards." In general, installation of sprinkler systems is not required for landscaped areas in residential zones. Development projects within industrial zones are required to install landscaping with sprinkler systems in the front and side street setbacks. Code requirements for installation of landscaping and sprinkler systems are enforced as "general guidelines." When appropriate, new industrial development is encouraged to install low maintenance desert landscaping.

7.4 City of El Centro Demand Management

The City of El Centro constructed its water treatment plant in 1954 as a state-of-the-art water treatment facility. The plant utilizes sedimentation, flocculation, filtration, and disinfection to produce an adequate supply of potable water. Production varies from 5 MGD during winter months to 12 MGD during the summer. The plant was designed to recycle and re-use all of its operational water except sanitary sewer flows. The operational wastewater is redirected back to the head works for treatment and reuse. At this time, there are no plans to reclaim sanitary sewer wastewater for domestic use

The City of El Centro has never had a water conservation plan, however, all customer services are metered and charges for service are based on size of meter and the quantity of water used. This price structure has encouraged voluntary conservation for more than 30 years.

The City has a separate division of 12 personnel dedicated to maintenance and repair of its underground infrastructure. The City has worked aggressively to replace cast iron pipe within the system. It is estimated that less than 1 % of the system remains cast iron pipe. Main breaks and leaks are priority repair work.

The City encourages public participation by hosting a "Water Week" celebration, which includes tours of the treatment facility and lectures about treatment, conservation, and the importance of water to our general well being.

The City of El Centro has engaged an engineering firm to prepare a master plan addressing needs in both water and sewer utilities. Two key parts of the plan will be to develop a Water Conservation plan and to complete a Water Rate study to recommend a rate structure which will address funding of capital improvements and maintenance for 5, 10, 15, and 20 year projections.

We anticipate completion of the master plan by March 2002.

Industrial and commercial development projects are required to install drought resistant plants for landscaping plans.

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REFERENCES

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APPENDIX A

Meeting Agendas

IMPERIAL IRRIGATION DISTRICT

BOARD OF DIRECTORS

Division 1 – Andy Horne, President
Division 2 – Bruce Kuhn
Division 3 – Lloyd Allen
Division 4 – Stella Mendoza, Vice President
Division 5 – Rudy Maldonado

W. R. Condit Auditorium
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MEETING OF OCTOBER 22, 2001 **2:00 p.m.**

ROLL CALL: Directors Horne, Kuhn, Allen, Mendoza and Maldonado

A. CLOSED SESSION – 2:00 p.m.

1. Public employee performance evaluations (Section 54957)
   a. Title: Internal Auditor
   b. Title: General Manager

2. Discussion with Legal Counsel of pending litigation (Section 54956.9)
   a. Allstate v. IID
   b. Anaya v. IID
   c. APCD
   d. Baker v. IID
   e. Brock v. IID
   f. CNA Insurance v. IID
   g. Commercial Lumber & Pallet v. IID
   h. CVWD v. IID
   i. DiMare v. IID (fire)
   j. DSAF v. IID
   k. Gillespie v. IID
   l. Hamrick v. IID
   m. Hernandez (Rachel & Daniel) v. IID
   n. IID v. AEGIS
   o. IID v. FERC
   p. Lopez et al v. IID
   q. Lower Colorado Region Litigation
      (Defenders of Wildlife et al v. Bruce Babbitt et al)
   r. MWD v. All Persons
   s. NAACP v. IID
   t. Nevarez, Jesus & Calhoun, Jeff (Highway 115 Accident)
   u. Perez, Herlinda (Centeno Welding) v. IID
   v. Ramirez, Bill & Manuela v. IID

I. PUBLIC COMMENT PERIOD – STATEMENT OF PROCEDURES

This is a public meeting and this is the time for public comment. At this time you may address the Board on items that are within the subject matter jurisdiction of IID.

Those who wish to address the Board should come to the microphone and state your name and address for the record. The President reserves the right to limit the speaker's time, and we request that you limit your remarks to no more than five minutes.

J. CONSENT AGENDA

1. Approval of IID Board Minutes: 1
   - October 9, 2001

2. Claims for Damages (Recommend Denial):
   - David & Carmen Gloria (IID File No. 01-0291.IP) 6
   - Moiola Bros Cattle Feeders (IID File No. 01-0293.IP) 8
   - Ocotillo Motel & Trailer Park (IID File No. 01-0345.IP) 10
   - Terry Shidler (IID File No. 01-0358.CP) 12
   - Linda Taylor (IID File No. 01-0297.CP) 14
   - Ruben Villa (IID File No. 01-0291.IP) 20

3. Authorize Extension of Lease 22
   - Vegetable Growers Supply Company/IID

4. Authorize Consent to Assignment – Pole Rental Agreement..... 25
   - Cable USA to Antilles Wireless

K. ACTION AGENDA

1. Briefing on Water Conservation and Transfer Process..... 28

2. Discussion/Concurrence on Suggestion to Rename Facility 29

3. Schedule Budget Workshops 30

4. Approval to Pay 2002 IID Dues 31
   - Association of California Water Agencies

5. Discussion/Approval of Revisions to PCAC Bylaws 35

6. Approval of Net Metering Power Rate Schedule 44

7. Schedule Workshop and Public Hearing 48
   - Energy Cost Adjustment Change

8. Approval of Urban Water Management Plan 49

BOARD AGENDA MEMORANDUM

TO: BOARD OF DIRECTORS

FROM: GENERAL MANAGER

SUBJECT: Urban Water Management Plan (UWMP) Adoption

DATE: October 22, 2001

DEPARTMENT: Water/Resources Planning & Management

Action Requested:
The Board of Directors is requested to adopt the final *2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro* (UWMP), dated October 2001. Once approved, the document will be forwarded to the California Department of Water Resources (DWR) and fulfill IID's obligations as outlined by the California Urban Water Management Planning Act (Act).

Background:
The California Urban Water Management Planning Act (Act) requires water suppliers providing water for municipal purposes (directly or indirectly) to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, to prepare, update, and adopt an UWMP every five years. In conjunction with staff from participating agencies, IID has completed a regional plan that incorporates District information as well as data and plan elements from the local municipalities affected by this Act. In July 2001 the Board: 1) approved release of a draft UWMP in order to receive public comments, 2) scheduled a public hearing to receive input on the UWMP, and 3) directed that a draft report be sent to DWR by August 31, 2001 so that IID could be classified as a compliant water supplier in a report to the California State Legislature. A public hearing for the UWMP was conducted on September 17, 2001 and no significant changes were made to the UWMP as a result of this public process. Upon adoption by the Board, a final UWMP will be sent to DWR to satisfy the Act's requirements. A mandatory update to this UWMP is required no later than December 31, 2005.

Financial Impact:
None (Budget for as a normal part of Water and Resources Planning & Management Departments operations.)

Recommendation:
Adopt the final *2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro* (UWMP) and direct staff to forward a final copy to the California Department of Water Resources as per the California Urban Water Management Planning Act.

Board Action:

Vote:_____aye _____no

IMPERIAL IRRIGATION DISTRICT

BOARD OF DIRECTORS

Division 1 – Andy Horne, President
Division 2 – Bruce Kuhn
Division 3 – Lloyd Allen
Division 4 – Stella Mendoza, Vice President
Division 5 – Rudy Maldonado

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MEETING OF JULY 24, 2001 **2:00 p.m.**

ROLL CALL: Directors Horne, Kuhn, Allen, Mendoza and Maldonado

A. CLOSED SESSION – 2:00 p.m.

1. Public employee performance evaluations (Section 54957)
   a. Title: Internal Auditor
   b. Title: General Manager

2. Discussion with Legal Counsel of pending litigation (Section 54956.9)
   a. APCD v. IID
   b. Allstate v. IID
   c. Baker v. IID
   d. Brock v. IID
   e. Brown v. IID
   f. Clevenger v. IID
   g. CVWD v. IID
   h. DiMare v. IID (Ave. 42 Project)
   i. DiMare v. IID (fire)
   j. Hamrick v. IID
   k. Hernandez (Rachel & Daniel) v. IID
   l. IID v. AEGIS
   m. IID v. FERC
   n. IVRRC v. IID
   o. Jackson v. IID
   p. Kwon v. IID
   q. Lopez et al v. IID
   r. Lower Colorado Region Litigation
      (Defenders of Wildlife et al v. Bruce Babbitt et al)
   s. McGaw v. IID
   t. Mendoza v. IID
   u. Montano/Rodriguez v. IID (Bonesteele Rd. Accident)
   v. MWD v. All Persons

2. Update and Funding Approval of Phase 2
• IID Exhibit at Pioneers Museum 49

3. Discuss and/or Approve Changing IID Meeting Times 50

4. Discussion and Possible Change of Board Meetings in August 51

5. Discussion on Power Consumers Advisory Committee
• Subcommittees, Bylaws, Charter 52

6. Update on First Phase of IID-Wide Efficiency Study 53

7. Approval to Release Urban Water Management Plan
And Schedule Public Hearing for August 7, 2001 54

8. Discussion and Approval of Revisions to Regulation 39
• Agricultural Tailwater Structures 57

9. All-American Canal Pipeline Project - DWR Funding Agreement 64

10. Discussion/Approval of Resolution
• Southwest Border Economic Development Pilot Program 76

11. Discussion and Approval of Increased Rates
• The Ferguson Group 79

12. Discussion/Approval of Donation Request
• Boys and Girls Club of Coachella Valley 84

13. Discussion of New Power Rate Schedule - Net Metering/Requirements
• Approval of Public Workshops for Net Metering Rate Schedule 88

14. Request to Award Bid 16-01
• Fifteen 25-MVA Power Transformers 94

15. Approval to hold Public Auction for Heavy Equipment
• September 17, 2001 98

16. Request Approval to Purchase Equipment:
• Bid 17-01: 2 Water Pull Wagons 100
• Bid 18-01: 2 Tractor/Bulldozers w/winch 102
• Bid 19-01: 1 Tractor/Bulldozer 104
• Bid 20-01: 2 Water Sprinkler Trucks 106

M. CONSENT ITEMS ADDED TO ACTION AGENDA

IMPERIAL IRRIGATION DISTRICT
BOARD AGENDA MEMORANDUM

TO: Board of Directors
FROM: General Manager
SUBJ: Urban Water Management Plan
DATE: July 24, 2001
DEPT: Water/Resources Planning & Management

Action Requested:
IID staff will provide an update on the development of a regional Urban Water Management Plan (UWMP) and reporting deadlines. The Board of Directors is requested to authorize release of the UWMP for public review, schedule a public hearing to coincide with the August 7 or August 21 Board meetings, and approve submittal of a final draft of the UWMP to DWR staff prior to August 31, 2001.

Background:
The California Urban Water Management Planning Act (Act) requires water suppliers providing water for municipal purposes (directly or indirectly) to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, to prepare, update, and adopt an UWMP every five years. In conjunction with staff from participating agencies, IID has drafted a regional plan that will incorporate District information as well as data and plan elements from the local municipalities affected by this Act. A variety of delays and information gaps prevented staff from completing and submitting this document to the Department of Water Resources (DWR) by the initial Act deadline of December 31, 2000. As a result, DWR recently requested that the UWMP be submitted no later than August 31, 2001 in order to be recognized in its report to the California State Legislature summarizing compliant water suppliers.

Financial Impact:
None

Recommendation:
Authorize release of the UWMP for public review, schedule a public hearing to receive comments on this document for August 7 or August 21, and approve submittal of a final draft of the UWMP to DWR staff prior to the August 31, 2001 deadline.

055

GRAY DAVIS, Governor

STATE OF CALIFORNIA – THE RESOURCES AGENCY

DEPARTMENT OF WATER RESOURCES
1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
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June 22, 2001

Mr. Jesse Silva
Imperial Irrigation District
Post Office Box 937
Imperial, California 92251

Dear Mr. Silva:

The Department of Water Resources lists your agency as a water supplier that delivers more than 3,000 acre-feet of water or that has more than 3,000 connections. The Urban Water Management Planning Act (California Water Code Sections 10610 - 10656) states that UWMPs are required to be developed by urban water suppliers that deliver more than 3,000 acre-feet of water or that have more than 3,000 connections. DWR has not yet received an urban water management plan from your agency. Urban water management plans were due to DWR by December 31, 2000.

If your agency has already submitted your UWMP, it may not have reached DWR. To find out if DWR has received your plan, please contact Brian Niski at (916) 327-1777 or by e-mail at bniski@water.ca.gov, or Judy Colvin at (916) 327-1771 or by e-mail at jcolvin@water.ca.gov. If your agency does not meet the requirements of the Act, you may contact us to clarify the size of your agency.

Should you be subject to the Act, but lack the expertise to develop the plan at this time, please take a look at the assistance available from our staff. It is our goal to support and assist urban water suppliers prepare their UWMPs. We realize that preparing an integrated and comprehensive urban water management plan may be a time intensive project. To assist you, we have developed various materials that your agency may use to prepare its UWMP. You can retrieve the materials from DWR's Urban Water Management Website at:
http://wwwdpla.water.ca.gov/urban/water_management/waterman.html.

This Website includes a copy of the Urban Water Management Planning Act, checklists, worksheets, and a sample 2000 UWMP, as well as contacts, frequently asked questions, and related Websites. If you do not have access to the Internet, you may contact DWR and we will send you these materials.

If you need any additional assistance, you can arrange to meet a representative of DWR. Contact names and telephone numbers for your area are listed below and on the Urban Water Management Website.

Brian Niski, Headquarters, Sacramento, (916) 327-1777
Judy Colvin, Headquarters, Sacramento, (916) 327-1771
Eugene Pixley, Northern District, Red Bluff, (530) 529-7392
Holly Sheradin, Central District, Sacramento, (916) 227-7585
Kim Rosmaier, Central District, Sacramento, (916) 227-7584
Luis Avila, San Joaquin District, Fresno, (559) 445-5429
David Inouye, Southern District, Glendale, (818) 543-4654

An UWMP is important for your Agency to strategically plan your water resources for the future. DWR encourages you to prepare an UWMP, and we hope that this activity will benefit your Agency.

In addition, the Urban Water Management Planning Act states (Section 10656):

"An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance to this part, is ineligible to receive drought assistance from the state until the urban water management plan is submitted pursuant to Article 3 (commencing with Section 10640) of Chapter 3."

Please submit your urban water management plan or contact DWR by August 31, 2001. A report will be prepared and submitted to the California State Legislature by December 31, 2001 summarizing the urban water management plans received by DWR.

If you have any questions, you may contact Brian Niski or Judy Colvin.

Sincerely,

Luana E. Kiger

Luana E. Kiger, Chief
Water Use Efficiency Office

BOARD OF DIRECTORS
Division 1 – Andy Horne, Vice President
Division 2 – Bruce Kuhn
Division 3 – Lloyd Allen
Division 4 – Don Cox
Division 5 – Rudy Maldonado, President

IMPERIAL IRRIGATION DISTRICT
William Condit Auditorium
1285 Broadway, El Centro, California
(760) 339-9477; (760) 339-9392 fax

Meeting of June 20, 2000

8:00 a.m.

ROLL CALL: Directors Horne, Kuhn, Allen, Cox and Maldonado

A. CLOSED SESSION – 8:00 a.m.

1. Public Employee Performance Evaluations (Section 54957)
   a. Title: Internal Auditor
   b. Title: General Manager
   c. Title: Executive Officer

2. Discussion with legal counsel of pending litigation (Section 54956.9)
   a. Aycock v. IID
   b. IVRRC v. IID
   c. CVWD v. IID
   d. Baker v. IID
   e. Brock v. IID
   f. Brown v. IID
   g. City of Indio v. Date Palm
   h. City of Indio v. Komar
   i. Clevenger v. IID
   j. DiMare v. IID
   k. Grajcer, Dov and Becky Broughton v. IID
   l. Hamrick v. IID
   m. Jackson v. IID
   n. Kwon v. IID
   o. McGaw v. IID
   p. Montano/Rodriguez v. IID (Bonesteele Rd. Accident)
   q. Morales v. IID
   r. NAACP v. IID
   s. Owen v. IID
   t. Parker v. IID
   u. Reina v. IID
   v. Saldivar v. IID
   w. State of California v. Samra
   x. Torres v. IID
   y. Unit 2 HRSG Failure
   z. Villa v. IID
   aa. Villanueva v. IID

3. Discussion with legal counsel of potential litigation (Section 54956.9) - 3 cases

L. CONSIDERATION OF CONSENT ITEMS ADDED TO ACTION AGENDA

M. INFORMATION ITEMS

page

1. Urban Water Management Planning Act (RPM)..... 121
2. Proposed Economic Development Fund (Executive)..... 122
3. Imperial Valley United Update (Public Affairs)..... 123
4. 800 MHZ Radio and IVECA Shared Radio System Update (Power)..... 124
5. Directors Election by Division (Executive)..... 125
6. CFO Financial Reports:
   a. ECA/Power Reserve Projection..... 126
   b. SAP Financial Demonstration..... 127
7. RFP #257 – Tubular Steel Poles for Highway 111 and Cal Energy (Power)..... 128

N. WRITTEN INFORMATION PROVIDED TO BOARD

None

O. PUBLIC HEARING – 5:00 p.m.
- **Schedule D-EA Power Rate**

P. CONTINUATION OF CLOSED SESSION

BOARD AGENDA MEMORANDUM

TO: BOARD OF DIRECTORS

FROM: GENERAL MANAGER

SUBJECT: Urban Water Management Plan Update

DATE: June 20, 2000

DEPARTMENT: Water Department

Action Requested:
No Action – information item only. David Inouye, California Department of Water Resources (Southern District), will present a summary of California's Urban Water Management Planning Act and discuss the major components of an Urban Water Management Plan. Vickie Doyle, IID's urban water management plan coordinator, will present a brief summary of completed work on IID's Urban Water Management Plan.

Background:
The California Urban Water Management Planning Act (Act) requires urban water suppliers providing water for municipal purposes (directly or indirectly) to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, to prepare, update, and adopt an urban water management plan (UWMP) every five years. IID must submit an UWMP by December 31, 2000 to comply with this Act, and is preparing a plan that incorporates IID information as well as data and plan elements from the local municipalities affected by this Act. Because the IID's service area overlaps those of the local cities, the combined plan is being created to summarize data common to all areas while also addressing specific plan elements that may vary from water supplier to water supplier.

Financial Impact: This project was budgeted for as a regular work plan.

Recommendation:
Information only – before December 31, 2000 the board will be asked to hold a public hearing on its UWMP and once finalized pass a resolution adopting it.

Board Action: None required at this time.

Vote:_____aye _____no

URBAN WATER MANAGEMENT PLANNING MEETING

Wednesday March 15, 2000
9:00 A.M.

Imperial Irrigation District – Water Control Center
333 East Barioni Blvd., Imperial, California
Vickie Doyle (760) 339-9446

Introductions

Regional Plan Data Collection General Status Updates:

Imperial Irrigation District	Vickie Doyle, Water Resources Engineer
	Fred Valera, Water Resources Planner
City of El Centro	Paul Steward, Water Plant Supervisor
	Hector Munoz, City of El Centro
City of Brawley	Manuel Aceves, Public Works Director
	Ruben Mireles, Water Plant Operator
City of Calexico	Victor Rodriguez, Water Department Supervisor
City of Calipatria	Tray Faubion, Public Works Director
Imperial County Public Works	Ismael Gomez, Assistant County Engineer
Imperial County Planning/Building	Jim Minnick, Planner II

Checklist and Worksheet Discussion

General Discussion

Next Scheduled Meeting – 9:00 a.m. April 5, 2000 at Imperial Irrigation District Headquarters

URBAN WATER MANAGEMENT PLANNING MEETING

Wednesday February 23, 2000
9:00 A.M.

Imperial Irrigation District – GM's Library (J-1 Building)*
333 East Barioni Blvd., Imperial, California
Vickie Doyle (760) 339-9446

Introductions

Regional Plan Data Collection General Status Updates:

Imperial Irrigation District	Vickie Doyle, Water Resources Engineer
	Fred Valera, Water Resources Planner
City of El Centro	Paul Steward, Water Plant Supervisor
City of Brawley	Manuel Aceves, Public Works Director
	Ruben Mireles, Water Plant Operator
City of Calexico	Victor Rodriguez, Water Department Supervisor
City of Calipatria	Tray Faubion, Public Works Director
Imperial County Public Works	Ismael Gomez, Assistant County Engineer
Imperial County Planning/Building	Jim Minnick, Planner II

Checklist and Worksheet Discussion

General Discussion

Next Scheduled Meeting

*Located on the west side of the IID Headquarters compound. Please ask the Security staff at the entrance for direction.

URBAN WATER MANAGEMENT PLANNING ACT
IMPERIAL VALLEY MEETING / WORKSHOP

Wednesday May 26, 1999
8:00 A.M.

Imperial Irrigation District – Water Control Center
333 East Barioni Blvd., Imperial, California
(760) 339-9446

8:00 – 8:15 a.m.	Introductions
8:15 – 8:30 a.m.	Regional Plan Discussion
8:30 – 9:00 a.m.	California Department of Water Resources Urban Water Management Planning Act Review Process Checklists and Worksheets Plan Submittal Date
9:00 – 9:30 a.m.	California Department of Water Resources Plan Preparation Options
9:30 – 12:00 p.m.	Checklist and Worksheet Discussion
12:00 – 1:15 p.m.	Lunch (Imperial Irrigation District will Provide)
1:15 – 2:30 p.m.	Questions and Comments

APPENDIX B

Distribution of Final Draft Plan

External Imperial Irrigation District Distribution List

2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro

Final October 2001

Date Distributed	Distributed Method	Name	No. of Copies	Description
25-Oct-01	Fed Ex	Ms. Luana Kiger, DWR Chief Water Use Efficiency Office Sacramento, CA, Fed Ex	1	Final & GM's Letter to DWR,
25-Oct-01	Fed Ex	Mr. Brian Niski, DWR Water Use Efficiency Office	1	Final & GM's Letter to DWR,
25-Oct-01	Fed Ex	Ms. Judy Colvin, DRW Water Use Efficiency Office	1	Final & GM's Letter to DWR,
25-Oct-01	Fed Ex	Mr. David Inouye, DWR Southern District Chief Water Conservation Land and Water Use Section	1	Final & GM's Letter to DWR,
17-Oct-01	Distributed by Vickie	Victor Rodriguez, City of Calexico	2	Final bound, Final unbound, & Vickie's Letter of Transmittal
17-Oct-01	Distributed by Vickie	Paul Steward, City of El Centro	2	Final bound, Final unbound, & Vickie's Letter of Transmittal
17-Oct-01	Distributed by Vickie	Ruben Mireles, City of Brawley	2	Final bound, Final unbound, & Vickie's Letter of Transmittal
26-Nov-01	IID Mail	Jurg Heuberger, Imperial County Planning/Building Dept.	1	Final & Vickie's Letter of Transmittal
26-Nov-01	IID Mail	Jim Minnick, Imperial County Planning/Building Dept.	1	Final & Vickie's Letter of Transmittal
26-Nov-01	IID Mail	Imperial Public Library	1	Final & Vickie's Letter of Transmittal
26-Nov-01	IID Mail	El Centro Public Library	1	Final & Vickie's Letter of Transmittal
26-Nov-01	IID Mail	Calexico Public Library	1	Final & Vickie's Letter of Transmittal
26-Nov-01	IID Mail	Brawley Public Library	1	Final & Vickie's Letter of Transmittal
26-Nov-01	IID Mail	Imperial City Manager	1	Final & Vickie's Letter of Transmittal
26-Nov-01	IID Mail	Calipatria Public Works Director	1	Final & Vickie's Letter of Transmittal
26-Nov-01	IID Mail	Holtville City Manager	1	Final & Vickie's Letter of Transmittal
17-Oct-01	Distributed by Vickie	Westmorland Finance Director	1	Final & Vickie's Letter of Transmittal
		Total Sum	20	

External Imperial Irrigation District Distribution List

2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro

Final Draft for Public Review August 2001

Date Distributed	Distributed Method	Name	No. of Copies	Description
29-Aug-01	Fed Ex	Ms. Luana Kiger, DWR Chief Water Use Efficiency Office Sacramento, CA, Fed Ex	1	Final Draft & GM's Letter to DWR,
29-Aug-01	Fed Ex	Mr. Brian Niski, DWR Water Use Efficiency Office	1	Final Draft & GM's Letter to DWR,
29-Aug-01	Fed Ex	Ms. Judy Colvin, DRW Water Use Efficiency Office	1	Final Draft & GM's Letter to DWR,
29-Aug-01	Fed Ex	Mr. David Inouye, DWR Southern District Chief Water Conservation Land and Water Use Section	1	Final Draft & GM's Letter to DWR,
30-Aug-01	Distributed by Vickie	Victor Rodriguez, City of Calexico	2	Final Draft bound, Final Draft unbound, & Vickie's Letter of Transmittal with project update
30-Aug-01	Distributed by Vickie	Paul Steward, City of El Centro	2	Final Draft bound, Final Draft unbound, & Vickie's Letter of Transmittal with project update
30-Aug-01	Distributed by Vickie	Ruben Mireles, City of Brawley	2	Final Draft bound, Final Draft unbound, & Vickie's Letter of Transmittal with project update
11-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	Jurg Heuberger, Imperial County Planning/Building Dept.	1	Final Draft, & Vickie's Letter of Transmittal with project update
11-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	Jim Minnick, Imperial County Planning/Building Dept.	1	Final Draft, & Vickie's Letter of Transmittal with project update
10-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	Ismael Gomez, Imperial County Public Works	1	Final Draft, & Vickie's Letter of Transmittal with project update
10-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	Imperial Public Library	2	Final Draft, & Vickie's Letter of Transmittal with project information
10-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	El Centro Public Library	2	Final Draft, & Vickie's Letter of Transmittal with project information
11-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	Calexico Public Library	2	Final Draft, & Vickie's Letter of Transmittal with project information
10-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	Brawley Public Library	2	Final Draft, & Vickie's Letter of Transmittal with project information
11-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	Imperial City Manager	1	Final Draft, & Vickie's Letter of Transmittal with project information
11-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	Calipatria Public Works Director	1	Final Draft, & Vickie's Letter of Transmittal with project information
10-Sep-01	IID Public Affairs Registered Mail Sept. 6, 2001	Holtville City Manager	1	Final Draft, & Vickie's Letter of Transmittal with project information
Returned by Mail to IID as Unclaimed Oct. 1, 2001	IID Public Affairs Registered Mail Sept. 6, 2001	Westmorland Water Department		Final Draft, & Vickie's Letter of Transmittal with project information
04-Oct-01	Distributed by Vickie	Westmorland Finance Director	1	Final Draft, & Vickie's Letter of Transmittal with project information
		Total Sum	25	

IMPERIAL IRRIGATION DISTRICT

OPERATING HEADQUARTERS • P. O BOX 937 • IMPERIAL, CALIFORNIA 92251

(760) 339-9751
FAX (760) 339-9009

RPM

August 28, 2001

RPM 8Y

VIA FEDERAL EXPRESS
Ms. Luana E. Kiger, Chief
Water Use Efficiency Office
1416 Ninth Street
P.O. Box 942836
Sacramento, CA 94236-0001

Subject: Imperial Irrigation District's (IID) Urban Water Management Plan

Dear Ms. Kiger:

In response to your letter dated June 22, 2001, attached is a draft copy of Imperial Irrigation District's Urban Water Management Plan (UWMP). Per your request, IID is submitting this draft document before August 31, 2001 so that it may be included in your annual summary to the California State Legislature.

IID is a regional supplier of raw water with a service territory in excess of one million acres. In order to facilitate a regional effort IID prepared this UWMP with assistance from the cities of Brawley, Calexico, and El Centro. Please be aware that IID's Board of Directors, and not the governing bodies of the other three participating municipalities, have authorized the submittal of this document. A public hearing to consider community input on the UWMP is scheduled for September 17, 2001. Revisions may be made after this date to incorporate any proposed changes or suggestions that are raised during the public hearing. IID's Board of Directors will then consider the adoption of a final UWMP in October 2001, at which time a final document will be resubmitted to your agency. The cities of Brawley, Calexico, and El Centro will conduct their own approval processes and submit the final document on their own behalf.

Sincerely,

JESSE P. SILVA
General Manager

Attachment (Draft UWMP) Via Federal Express

Copy: Brian Nicki & Judy Colvin, Sacramento DWR
David Inouye, Southern District DWR

U:Ltrs\UrbanWaterMgmtPlan.ltr.doc

APPENDIX C

Public Hearing Notices

This public notice was published in the Imperial Valley Press on September 9, 11, 12, and 16, 2001.

Imperial Irrigation District

Public Hearing Notice

Subject: The Imperial Irrigation District Board of Directors scheduled a September 17, 2001 public hearing for the *2000 Urban Water Management Plan* for Imperial Irrigation District and the cities of Brawley, Calexico and El Centro. The public hearing will be held at the Imperial Irrigation District William R. Condit Auditorium at 5:30 p.m., located at 1285 Broadway, El Centro, CA.

Public Review Period: Written comments can be mailed to:

Vickie Doyle, Technical Resources and Planning Unit
Imperial Irrigation District
P. O. Box 937
Imperial, California 92251
or Fax: 760-355-4694

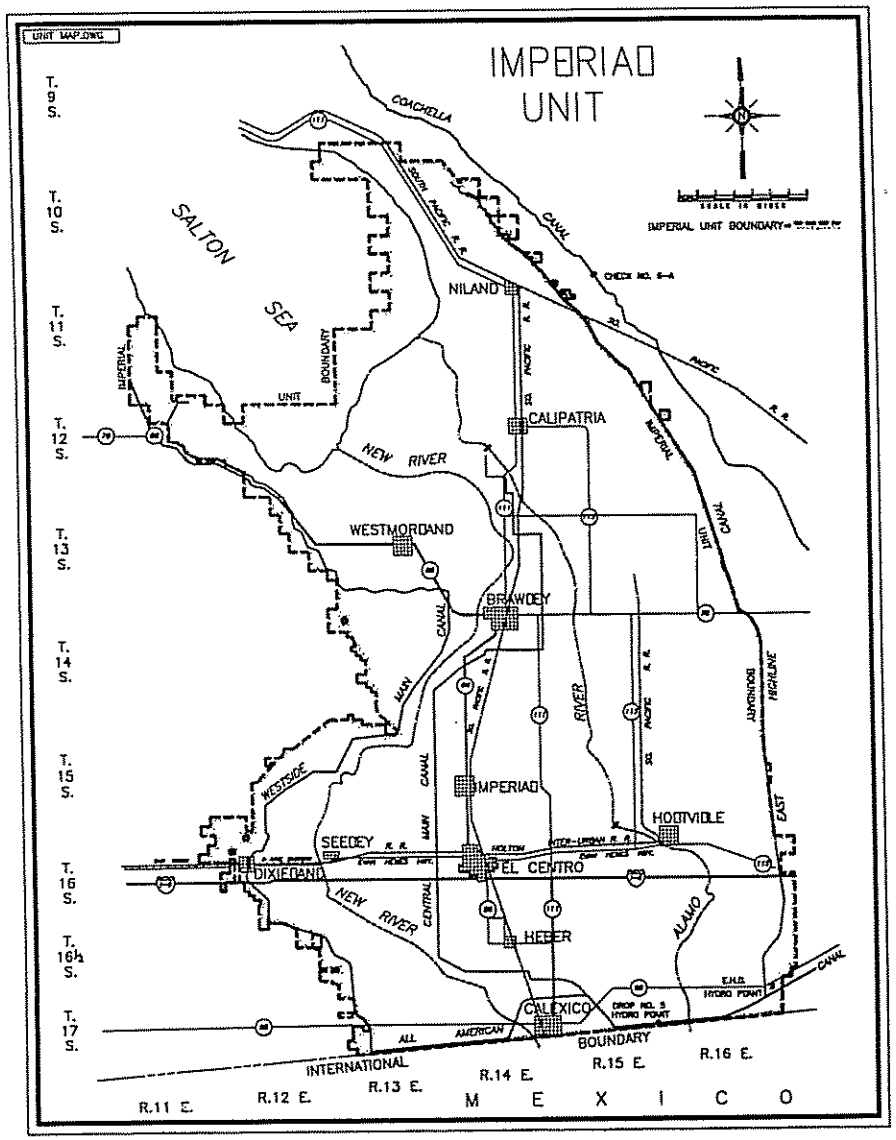
Written comments will be accepted until September 18, 2001. Written and public comments will be answered with written responses and incorporated into the final plan.

Documentation, public comments and responses from the cities of Brawley, El Centro and Calexico will also be incorporated into the final plan. The Imperial Irrigation District Board of Directors will consider the adoption of a final Urban Water Management Plan in October 2001.

The document is available for public review at the El Centro, Calexico, Brawley and Imperial public libraries and at the Public Affairs Department located at 1284 Main Street, El Centro, CA.

APPENDIX D

Board/Council/Public Hearing Presentations



2000 Urban Water Management Plan For Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro

Imperial Irrigation District Public Hearing

September 17, 2001

Overview

This presentation includes plan information regarding:

- California Urban Water Management Planning Act Requirements
- Imperial Irrigation District
- Urban Water Management Plan
- Agency Coordination
- Plan Elements

Requirements
Urban Water Management Planning Act

CALIFORNIA
URBAN WATER MANAGEMENT PLANNING ACT

Established: AB 797, Klehs, 1983
Amended: AB 2661, Klehs, 1990
AB 11X, Filante, 1991
AB 1869, Speier, 1991
AB 892, Frazee, 1993
SB 1017, McCorquodale, 1994
AB 2853, Cortese, 1994
AB 1845, Cortese, 1995
SB 1011, Polanco, 1995

CALIFORNIA WATER CODE DIVISION 6
PART 2.6. URBAN WATER MANAGEMENT PLANNING

Requirements
Urban Water Management Planning Act

Urban Water Suppliers are mandated to produce Urban Water Management Plans by the California Urban Water Management Planning Act (Water Code Section 10610)

An "urban water supplier" means a supplier that:

- is either publicly or privately owned and

Requirements

Urban Water Management Planning Act

Urban Water Suppliers are mandated to produce Urban Water Management Plans by the California Urban Water Management Planning Act (Water Code Section 10610 -

An "urban water supplier" means a supplier that:

- ◆ is either publicly or privately owned and
- ◆ provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplies more than 3,000 acre-feet of water annually.

Requirements

Urban Water Management Planning Act

- ◆ Every urban water supplier shall prepare and adopt an urban water management plan for long-term resource planning to ensure adequate water supplies for current and future water demands.

Requirements

Urban Water Management Planning Act

- ◆ Every urban water supplier shall prepare and adopt an urban water management plan for long-term resource planning to ensure adequate water supplies for current and future water demands.
- ◆ Every urban water supplier shall update its urban water management plan at least once every five years.

Requirements
Urban Water Management Plans

Question	Response
What are Urban Water Management Plans?	

Requirements
Urban Water Management Plans

Question	Response
What are Urban Water Management Plans?	The plans are mandated by the California Urban Water Management Planning Act.

Requirements
Urban Water Management Plans

Question	Response
What are Urban Water Management Plans?	The plans are mandated by the California Urban Water Management Planning Act. The plans describe current urban water use.

Requirements
Urban Water Management Plans

Question	Response
What are Urban Water Management Plans?	The plans are mandated by the California Urban Water Management Planning Act. The plans describe current urban water use. The plans specify measures that conserve and efficiently use urban water supplies.

Imperial Irrigation District

Question	Response
Is the Imperial Irrigation District an urban water supplier and does it have to prepare an urban water management plan?	

Imperial Irrigation District

Question	Response
Is the Imperial Irrigation District an urban water supplier and does it have to prepare an urban water management plan?	Yes the Imperial Irrigation District is an indirect urban water supplier, as defined in the Urban Water Management Planning Act,because it supplies raw water in quantities greater than 3,000 acre-feet per year to retailers with a customer base of more than 3,000 customers.

Imperial Irrigation District

Question	Response
Is the Imperial Irrigation District an urban water supplier and does it have to prepare an urban water management plan?	Yes the Imperial Irrigation District is an indirect urban water supplier, as defined in the Urban Water Management Planning Act,because it supplies raw water in quantities greater than 3,000 acre-feet per year to retailers with a customer base of more than 3,000 customers. The Imperial Irrigation District is required to prepare an Urban Water Management Plan.

Imperial Irrigation District

Question	Response
How much water does the Imperial Irrigation District supply for municipal purposes?	

Imperial Irrigation District

Question	Response
How much water does the Imperial Irrigation District supply for municipal purposes?	The Imperial Irrigation District provides raw Colorado River flows to public and private retailers that treat and distribute water for municipal and industrial purposes.

Imperial Irrigation District

Question	Response
How much water does the Imperial Irrigation District supply for municipal purposes?	The Imperial Irrigation District provides raw Colorado River flows to public and private retailers that treat and distribute water for municipal and industrial purposes In the year 2000, all retailers combined, located in the Imperial Unit Service Area, purchased approximately 52,200 acre-feet of water. These municipal and industrial water deliveries comprised less than 2% of Imperial Irrigation District's total annual water sales. The remaining 98% was provided primarily for agricultural purposes

Imperial Irrigation District

Question	Response
Which cities within the Imperial Irrigation District's water service area supply more than 3,000 acre-feet of water per year?	

Imperial Irrigation District

Question	Response
Which cities within the Imperial Irrigation District's water service area supply more than 3,000 acre-feet of water per year?	Brawley Calexico, Calipatria, and El Centro Calipatria is served by Southern California Water Company which has developed it's own Urban Water Management Plan and thus is not part of this document.

Urban Water Management Plan

The 2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico and El Centro:

- Is prepared by Imperial Irrigation District staff for the Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro.

Urban Water Management Plan

The 2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico and El Centro:

- Is prepared by Imperial Irrigation District staff for the Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro.
- Documents specific areas within the domains of each city and the Imperial Irrigation District.

Urban Water Management Plan

The 2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico and El Centro:

- Is prepared by Imperial Irrigation District staff for the Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro.
- Documents specific areas within the domains of each city and the Imperial Irrigation District.
- Includes city data that was provided by city staff. Imperial Irrigation District staff compiled city data included in this plan and is not responsible for the content of specific city sections.

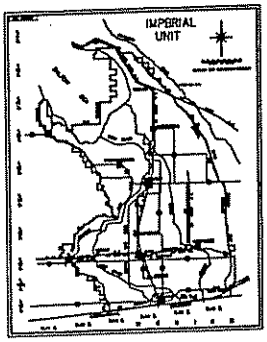
Agency Coordination

Staff from the following agencies assisted with the information contained in this plan.

- City of Brawley
- City of Calexico
- City of El Centro
- Imperial County
  Public Works & Planning/Building Departments
- Imperial Irrigation District

Plan Elements

Service Area



The plan's service area is defined as the Imperial Unit; includes the Cities of Brawley, Calexico, and El Centro; and has a total area of 694,346 acres. The Imperial Unit is contained within Imperial County.

In 2000, the total population of Imperial County is 148,980. In 2020, the total population is projected by Southern California Association of Governments to be 280,341.

Agriculture is the predominant land use, approximately 70% of the Imperial Unit.

A mild climate, year-round growing season, good soils, gentle slopping land combined with strong historical Colorado River water rights make this one of the most productive agricultural regions in the world.

Plan Elements

Current/Projected Annual Water Supplies

Table 4.1.1
Current and Projected Annual Water Supplies

Agency	Water Supply Source	2000	2005	2010	2015	2020
Imperial Irrigation District (ID)	Colorado River Water Rights[1]	3,296,775 AF[3]	3,100,000 AF[3]	3,100,000 AF[3]	3,100,000 AF[3]	3,100,000 AF[3]
City of Brawley	ID	2,701 MG	3,139 MG	3,842 MG	4,709 MG	5,840 MG
City of Calexico	ID	1,856 MG	1,965 MG	2,005 MG	2,101 MG	2,200 MG
City of El Centro	ID	8,556 AF	8,643 AF	9,106 AF	9,382 AF	9,663 AF

Units of Measure: AF = Acre Feet MG = Million Gallons

[1] See Table 4.B.1. Imperial Irrigation District's water right is not a defined volume but rather a quantity of water to serve a defined area of land.
[2] Water Supply calculated using provisional water use data from Overview From Mainstream-Available Return Flow & Consumptive Use of Such Water Calendar Year 2000, by U.S. Department of the Interior Bureau of Reclamation Lower Colorado River Operations, March 7, 2001, Provisional Water Use 2000.
[3] Voluntary cap as per the proposed Quantification Settlement Agreement (QSA) for the Colorado River.

Plan Elements
Water Use

Municipalities Annual Water Use
(Historical and Projected; From Table 4.3.1)

Water Use	1995	2000	2005	2010	2015	2020
Brawley	2,709	2,605	3,615	4,626	5,626	6,570
Calexico	1,412	1,635	1,750	1,834	1,951	2,068
El Centro	no data	2,864	2,951	3,039	3,131	3,224

Units of Measure: Million Gallons

Plan Elements
Water Use

Imperial Irrigation District Annual Water Use (Table 4.3.2)
Historical, Projected, & Water Conservation/Transfer Programs/Projects (acre-feet))

Water Use	1995	2000	2005	2010	2015	2020
Consumptive Use[1,2,3,5] (Includes agricultural, service pipes, municipalities, industrial, losses, and unaccounted for)	3,070,582[1]	3,112,951[2]	2,910,000[3]	2,722,300[3]	2,877,300[3]	2,652,300[3]
Water Conservation & Transfers						
IID/MWD Transfer[4,5,6]	74,570[4]	109,460[4]	110,000[6]	110,000[6]	110,000[6]	110,000[6]
IID/San Diego County Water Authority Transfer[6]	0	0	80,000	180,000	200,000	200,000
IID/Coachella Valley Water District Transfer[7]	0	0	0	20,000	45,000	70,000
AAC Lining Conservation (MWD)[8]	0	0	0	56,200	56,200	56,200
AAC Lining Conservation (San Luis Rey Indian Water Rights Settlement Act)[8]	0	0	0	11,500	11,500	11,500
Total (Acre-Feet)	3,145,152	3,222,411	3,100,000	3,100,000	3,100,000	3,100,000

Plan Elements
Emergency Preparedness

- Emergency actions and procedures to be taken by the Imperial Irrigation District staff during an emergency or time of disaster are described in the *Emergency Preparedness* Plan. The plan includes required staffs action and procedure to respond to events that impair water operation of canals, laterals, drains, dams, and other facilities.

- For the cities in the Imperial Unit there is a ten-day storage holding capacity requirement. The Imperial County Office of Emergency Services requires this storage holding capacity for cities.

Plan Elements
Projected Supply and Demand Comparison

Table 5.1.1
Projected Supply and Demand Comparison

	2000	2005	2010	2015	2020
Imperial Irrigation District Supply Totals[1]	3,296,775[1]	3,100,000[2]	3,100,000[2]	3,100,000[2]	3,100,000[2]
Imperial Irrigation District Demand Totals[1&3]	3,112,951[3]	3,100,000[2]	3,100,000[2]	3,100,000[2]	3,100,000[2]
Difference	183,824	0	0	0	0

Unit of Measure is Acre-feet/Year

[1] Water supply calculated using provisional water use data from *Diversions from Mainstream – Available Return Flow and Consumptive Use of Each Water Calendar Year 2000*, by U. S Department of the Interior Bureau of Reclamation Lower Colorado River Operations, March 17, 2001, Provisional Water Use 2000.

[2] Voluntary cap per the proposed Quantification Settlement Agreement (QSA) for the Colorado River. California Colorado River Annual Water Rights Priorities are listed in Table 4.0.1.

[3] Estimated using provisional water use data from *Diversions from Mainstream – Available Return Flow and Consumptive Use of Each Water Calendar Year 2000*, by U. S Department of the Interior Bureau of Reclamation Lower Colorado River Operations, March 17, 2001, Provisional Water Use 2000.

Plan Elements
Supply Reliability and Demand Comparison

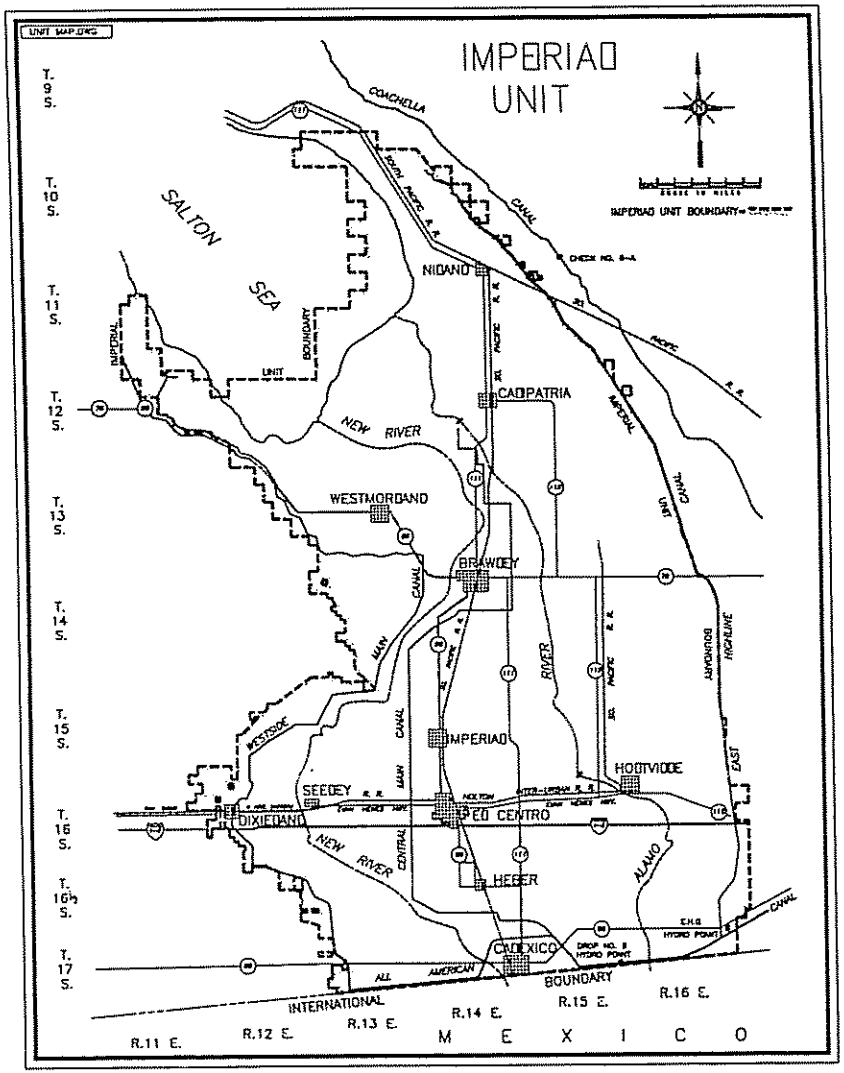
	1965 Average (Normal) Water Year	1992 Single Reduced Demand Water Year	Multiple Reduced Demand Water Years		
			Year 1 (1991)	Year 2 (1992)	Year 3 (1993)
IID Supply Totals[1]	3,379,233 AF	3,483,982 AF	3,378,173 AF	3,483,982 AF	3,457,808 AF
IID Demand Totals[2]	3,070,842 AF	2,572,858 AF	2,806,063 AF	2,572,858 AF	2,772,148 AF
Difference	302,851 AF	881,333 AF	476,210 AF	891,333 AF	668,781 AF

[1] Table 5.2.1
[2] Calculated value using California's 3.85 MAF agricultural entitlement and priority system along with USBR Decree Accounting records.
[3] USBR Decree Accounting Records

Plan Elements
Demand Management

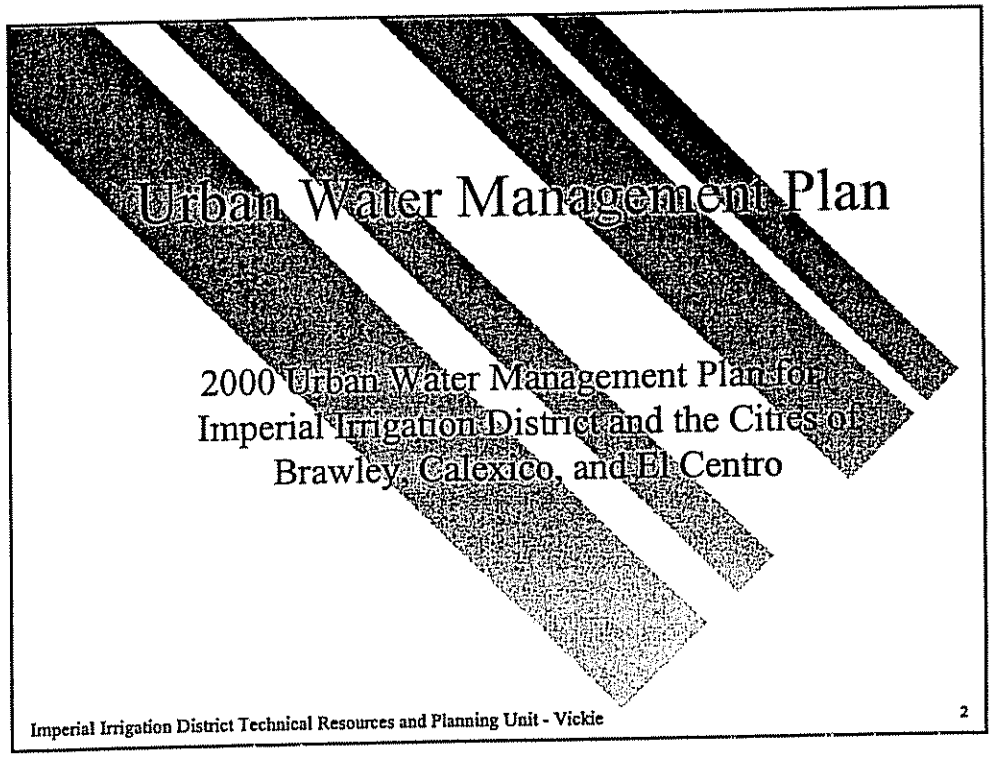
Imperial Irrigation District Demand Management Highlights

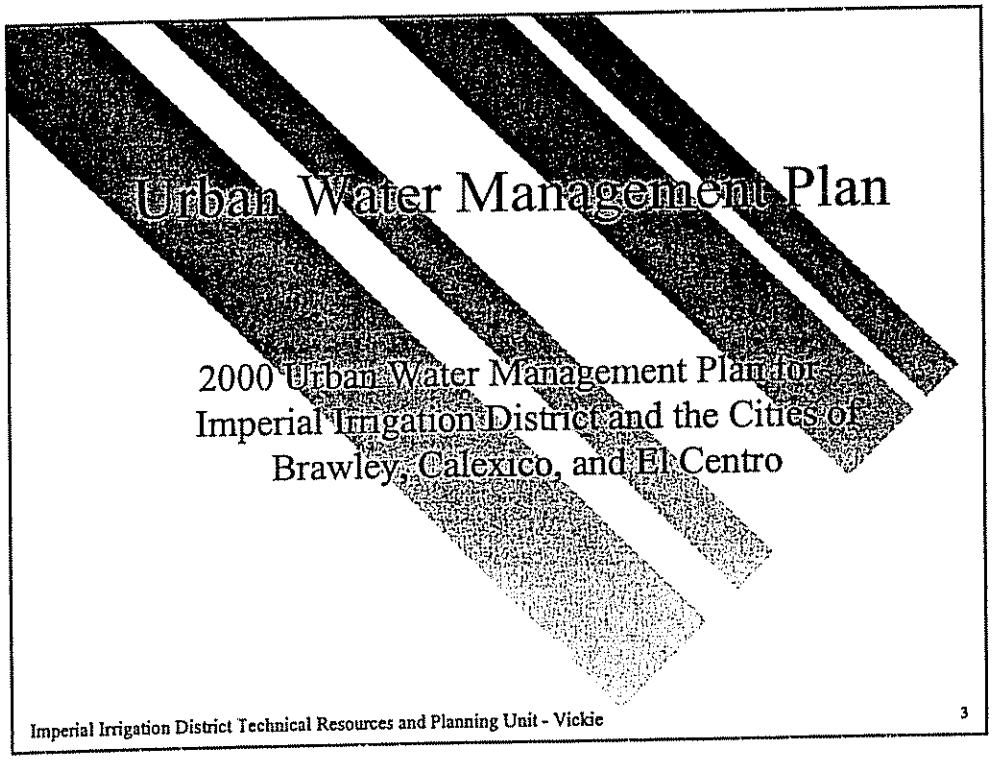
- Seepage Recovery systems (AAC, EHL, WSM)
- On-farm tile drainage
- Concrete lining and pipelining projects
  3.624 miles canal concrete lining (2507 miles private head ditches, 911 miles canals/laterals, 206 miles canal/laterals - IID/MWD program)
  117 miles drain pipelines
- Telemetry and SCADA remote control flow systems
- 10 regulating reservoirs
- Lateral Interceptors
- Water conservation programs (tailwater return systems, irrigation scheduling, triple charges, field irrigation evaluations, salinity monitoring, 12-hour runs, system automation, etc.)
- Pilot projects (dead level, modified irrigation, non-crop irrigation reduction, etc.)
- Water conservation education
- IID/MWD conservation program
- Proposed IID/SDCWA transfer and QSA



2000 Urban Water Management Plan For Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro

Imperial Irrigation Board of Director's Meeting June 20, 2000


Urban Water Management Plan
2000 Urban Water Management Plan for
Imperial Irrigation District and the Cities of
Brawley, Calexico, and El Centro
Imperial Irrigation District Technical Resources and Planning Unit - Vickie
2


Urban Water Management Plan
2000 Urban Water Management Plan for
Imperial Irrigation District and the Cities of
Brawley, Calexico, and El Centro
Imperial Irrigation District Technical Resources and Planning Unit - Vickie
3

Agency Coordination

- City of Brawley
- City of Calexico
- City of Calipatria
- City of El Centro
- Imperial County - Public Works & Planning/Building Departments
- Imperial Irrigation District

Participating Agencies

- City of Brawley
- City of Calexico
- City of El Centro
- Imperial Irrigation District

APPENDIX E

Public Hearing Comments and Response to Comments

The Imperial Irrigation District's public hearing for the *2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro* was held September 17, 2001. There were no questions or comments from the public.

APPENDIX F

Resolutions, Approvals, and/or Board/Council Minutes

IMPERIAL IRRIGATION DISTRICT

OPERATING HEADQUARTERS • P O BOX 937 • IMPERIAL, CALIFORNIA 92251

May 17, 2002

Mr. David Inouye
Chief Water Conservation and Land and Water Use Section
Department of Water Resources Southern District
770 Fairmont Ave. Suite 102
Glendale, CA 91203-1035

Subject: Addendum for Imperial Irrigation District's 2000 Urban Water Management Plan

Dear Mr. Inouye:

The enclosed addendum is to be added to Imperial Irrigation District's urban water management plan. The addendum is entitled *Addendum to Section 6.0 Urban Water Shortage Management, 2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro*. Thank you for your assistance with identifying the additional information areas that are included in this addendum.

Future communications regarding your agency's review of the document or requests for additional information should be directed to Vickie Doyle, Technical Resources and Planning Unit, at (760) 339-9446.

Sincerely,

JESSE P. SILVA
General Manager

VLD:mdr

Attachment
cc: Luana Kiger, Brian Niski, & Judy Colvin, Sacramento DWR

E:\UWMP2000Addendum_DWR doc

ADDENDUM TO SECTION 6.0 URBAN WATER SHORTAGE MANAGEMENT

2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro

Penalties or charges for excessive water use by individual urban consumers are beyond the jurisdiction of the Imperial Irrigation District. Any penalties or charges for excessive urban water use are the responsibility of individual urban water suppliers who treat and distribute water within the Imperial Unit. The Imperial Irrigation District has a 15-Point Water Conservation Program that assesses extra charges for excessive agricultural water use.

Less than two percent of the Imperial Irrigation District's untreated water is ultimately used for urban purposes and is provided indirectly to consumers through a variety of public and private treatment agencies. In 1999 the Imperial Irrigation District delivered approximately 98.2 percent of its annual flows to agricultural water users, 1.2 percent to municipalities, and 0.6 percent for industrial purposes. Urban water supply shortage stage one has cut back conditions of less than 15 percent, stage two has cut back conditions of 15 percent to less than 25 percent, and stage 3 has cut back condition of 25 percent to less than 35 percent. The percentages of urban supply-shortage stages would be calculated from the smaller percentage of total urban water.

During a water shortage the expense of reduced urban water sales could be offset by raising the water rate $0.14 for a 15 percent reduction, $0.24 for a 25 percent reduction, and $0.34 for a 35 percent reduction. Measures to overcome revenue and expenditure impacts could include raising the current rate or changing the rate structure. The Imperial Irrigation District continuously looks at reducing overhead. The Imperial Irrigation District currently has a reserve fund. Changes in expenditures are not anticipated.

Mechanisms to determine actual individual urban customer reductions are beyond the jurisdiction of the Imperial Irrigation District. Any urban customer mechanism to determine actual water use reductions is the responsibility of individual urban water suppliers who treat and distribute the water. A mechanism to determine actual urban water use reduction, from urban water suppliers, might include comparing water deliveries against historical water deliveries. Water delivered to urban water suppliers from Imperial Irrigation District's water system is measured.

IMPERIAL IRRIGATION DISTRICT)
)
SECRETARY'S CERTIFICATE)

I, Gloria A. Rivera, Assistant Secretary to the Board of Directors of the Imperial Irrigation District, do hereby certify that the following action was taken by the Board of Directors at their regular board meeting on Monday, October 22, 2001:

> "Moved by Director Mendoza, seconded by Director Kuhn, that the Board adopt the final *2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro* and direct staff to forward a final copy to the California Department of Water Resources to fulfill IID's obligation as outlined by the California Urban Water Management Planning Act.
>
> Motion carried, with Director Allen absent."

Dated this 30th day of October, 2001.

Gloria A. Rivera

GLORIA A. RIVERA

REGULAR BOARD MEETING
DISTRICT

IMPERIAL IRRIGATION

1285 BROADWAY STREET, EL CENTRO, CA
MONDAY, OCTOBER 22, 2001

Directors present: Andy Horne, Bruce Kuhn, Stella Mendoza, and Rudy Maldonado
Directors absent: Lloyd Allen

CLOSED SESSION – 2:00 p.m.
Review the performance of the General Manager and Internal Auditor, address several lawsuits, discuss with Legal Counsel three issues of potential litigation, and confer with negotiators on possible transfer of conserved water.

OPEN SESSION & PRESENTATIONS – 5:00 p.m.
Sue Giller led us in the Pledge of Allegiance to the Flag.

BOARD MEMBER COMMENTS
Director Maldonado requested that within the next 30 days staff brief the Board on the status of the SAP project and the pros and cons of the proposed system upgrade to the 4.6 version.

Director Kuhn stated that there are about 5,000 people in Imperial Valley that make a living from farming and he, for one, will take a stand against fallowing. He will do anything within his legal power to stop it. Those that support fallowing are not on this board. Director Mendoza agreed with his sentiments.

President Horne stated that he agreed with both directors above. He reported on his attendance to the Salton Sea Authority (SSA) meeting on October 18 where the economic impact study of the effects of fallowing in the Imperial Valley to save the Salton Sea was discussed. This study was conducted by the Bureau of Reclamation and SSA. The report states that about 1% jobs would be lost, but the reality is that it could be between 1,200 and 2,000. Director Horne indicated that it is time that staff be directed to prepare a resolution for the Board's consideration stating that the Board is against using fallowing as a way to save the Salton Sea. Director Kuhn stated we should ask the County Board of Supervisors to adopt a similar resolution.

GENERAL MANAGER COMMENTS – Jesse Silva
As a result of the Anthrax occurrences, we have received information from the Governor's Office on guidelines to follow when opening incoming mail, and we are reviewing those procedures with the appropriate IID employees.

CONSENT

No. 1 Approval of IID Minutes	Moved by Director Mendoza, seconded by Director Kuhn, that the Board approve the minutes of the October 9, 2001regular meeting of the Imperial Irrigation District Board of Directors as submitted. Motion carried, with Director Allen absent.
No. 2 Claims for Damages	Moved by Director Mendoza, seconded by Director Kuhn, that the Board reject the claims listed below in their entirety, and that the Secretary to the Board inform claimants by notice recommended by Chief Legal Counsel:

No. 7
Schedule ECA
Public Hearings

The Board agreed to hold to hold two public hearings on proposed changes to Power Rate Schedule ECA (Energy Cost Adjustment) as follows:

5:00 p.m.	Monday, December 3	El Centro Board Room
5:00 p.m.	Tuesday, December 4	La Quinta Board Room

No. 8
Approval of Urban Water Management Plan

Moved by Director Mendoza, seconded by Director Kuhn, that the Board adopt the final *2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro* and direct staff to forward a final copy to the California Department of Water Resources to fulfill IID's obligation as outlined by the California Urban Water Management Planning Act. Motion carried, with Director Allen absent.

No. 9
Rent-to-Own Caterpillar Backhoe

Moved by Director Kuhn, seconded by Director Mendoza, that the Board authorize staff to accept the offer from Empire Machinery to convert past rental payments toward the purchase price ($14,230.26 plus tax) of a Caterpillar 416 backhoe which IID is currently renting. Motion carried, with Director Allen absent.

No. 10
Long-Term Rental Caterpillar 325 Excavator

Moved by Director Kuhn, seconded by Director Mendoza, that the Board approve the conversion of a rental of a Caterpillar 325 excavator to long-term rent of 36 months at $3,049 per month. Motion carried, with Director Allen absent.

No. 11
Policy on Military Leave of Absence

Moved by Director Kuhn, seconded by Director Mendoza, that the Board approve that effective September 11, 2001 (and after the 30-calendar day period has ended for the employee and during the remaining period of an employee's temporary active duty service, the Imperial Irrigation District will continue to compensate reservists and National Guard personnel by making up the difference between the employee's monthly salary and his/her military base pay. Medical benefits will continue for the employee and his/her dependents. This entitlement will end upon the employee's return from active duty or on September 11, 2003. Motion carried, with Director Allen absent.

No. 12
Group Wellness Program

Moved by Director Mendoza, seconded by Director Kuhn, that the Board accept the Technical Advisory Group's recommendation to implement a Life Management Group Wellness/Health Screening Program to include full-time employees and spouse participation in the medical benefits plan. Cost is $117,150 assuming 50% of active employees and 50% of active employee spouses participate. Motion carried, with Director Allen absent.

REGULAR BOARD MEETING

IMPERIAL IRRIGATION DISTRICT
1285 BROADWAY STREET, EL CENTRO, CA
MONDAY, SEPTEMBER 17, 2001

The Board convened in regular session September 11, 2001 with all directors present; however, out of respect for the people who lost their lives because of the terrorist attack on the World Trade Center in New York today, President Horne decided to adjourn the meeting to Monday, September 17, 2001. A moment of silence was held for the victims; our thoughts and prayers are with their families.

September 17, 2001
Directors present: Andy Horne, Bruce Kuhn, Lloyd Allen, Stella Mendoza, and Rudy Maldonado
Directors absent: None

OPEN SESSION & PRESENTATIONS – 5:00 p.m.
Jane Alsip led us in the Pledge of Allegiance to the Flag.

President Horne and General Manager Silva recognized 17 employees for their years of service to the Imperial Irrigation District for a combined total of 315 worker-years.

PUBLIC HEARINGS

No. 1
Net Metering Power Rate Schedule

Bob Fugett, General Superintendent for Electric Services, explained the proposed IID net metering power rate schedule which is to facilitate terms of service to customers with photovoltaic or wind power production systems, or a hybrid system of both, with a capacity of not more than one megawatt.

There were no public comments and the hearing was concluded.

No. 2
Urban Water Management Plan

Vickie Doyle, Engineer Assistant, provided a briefing on the "2000 Urban Water Management Plan for Imperial Irrigation District and the cities of Brawley, Calexico and El Centro."

There were no public comments and the hearing was concluded.

GENERAL MANAGER COMMENTS – Jesse Silva
Copies of the 2000 IID Annual Report were presented to the Board.

PUBLIC COMMENTS
Don Cox, former IID director, talked about the Salton Sea legislation. Director Mendoza stated that she does not support the legislation and doesn't think it will be approved.

Larry Gilbert asked about progress on the water transfer. Chief Legal Counsel Carter stated that we are currently finishing negotiations with the Fish and Wildlife Service and Department of Fish and Game. The EIR/EIS should be released December 6, after which there will be a 60-day comment period. After the comments are received and addressed, the final document will be prepared. After the release of the final document, landowners will have a period of 120 days to sign up.

CITY COUNCIL
REGULAR SESSION
September 4th 2001
6:30 p.m.

Councilmen
Victor M. Carrillo
Mayor
John R. Renison
Mayor Pro Tem
Javier Alatorre
Gilbert B. Grijalva
Frank O. Montoya

City Council Chambers
608 Heber Avenue
Calexico, CA

City Manager
Richard H. Inman
City Attorney
Michael L. Rood
City Treasurer
Rodolfo Moreno
City Clerk
Lourdes Cordova

AGENDA

CALL TO ORDER AND ATTENDANCE
PLEDGE OF ALLEGIANCE
APPROVAL OF AGENDA

ANNOUNCEMENTS/PUBLIC COMMENTS:

Employee of the Quarter recognition-Lizeth Soberanes, Library

Any person wishing to address this body concerning matters within its jurisdiction may do so at this time.

GENERAL COMMENTS BY CITY COUNCIL MEMBERS

A. **CONSENT AGENDA**

1. MINUTES. It is recommended the City Council minutes for August 21, 2001 be approved.

2. MINUTES. It is recommended the Planning Commission minutes for July 9th, 2001 be ratified.

3. MINUTES. It is recommended the Recreation Commission minutes for July 19th, 2001 be ratified.

4. Financial Report for the month of June 2001.

5. Authorization to allow Fire Chief to attend Mexican Fire Chief's Convention in Mazatlan, Sinaloa, Mexico from October 23-26, 2001.

6. Designation of City Manager as representative on the Imperial Valley Joint Powers Telecommunications Authority and allow City Manager to designate his/her alternate.

B. **NEW BUSINESS.**

7. Discussion/Action-Appointments to Housing Authority (2 appointments); Recreation Commission (2 appointments); Police Commission (1 appointment); Economic Development Commission (1 appointments); Beautification Commission (1 appointment).

8. Discussion/Action-Ewing Classification Study/Proposed Job Classifications and Job Specifications. (Linda Nunez, Human Resources Director/Risk Manager)

9. Discussion/Action-Reclassification Policy and Procedure. (Linda Nunez, Human Resources Director/Risk Manager)

10. Discussion/Action-Direction concerning increase in Transient Occupancy Tax (TOT) on March 2002 ballot. (Rich Inman, City Manager)

C. **SET FOR PUBLIC HEARING.**

11. Wireless Telecommunication Systems Ordinance.

D. **PUBLIC HEARING.**

12. Bravo/Rodiles Initial Study

E. **INFORMATION ITEMS.**

13. 2000 Urban Water Management Plan for Imperial Irrigation District and the cities of Brawley, Calexico and El Centro.
14. Investment Committee meeting report.

F. **CLOSED SESSION**

Conference with labor negotiator-Gov. Code Section 54957; Police Officers Association; Fire Fighters Assoc.; Miscellaneous/Calexico Municipal Employees Assoc.; Water/Wastewater Plant Operators; Supervisors Assoc.; City Negotiators; City Manager, Personnel Director, City Attorney.

Conference with legal counsel-existing litigation-Subdivision (a) of Section 54956.9-Bravo/Rodiles vs. City of Calexico Case No. M-0074

G. **ADJOURNMENT**

Next City Council meeting is Tuesday, September 18, 2001. ***Deadline to submit agenda items is Tuesday, September 11, 2001, by 5:00 p.m.***

DATE 9/13/01

I HEREBY CERTIFY THAT THIS IS A TRUE COPY
OF THE ORIGINAL RECORD ON FILE IN THIS OFFICE.

ent By: PUBLIC WORKS DEPT.;

Planning Director stated the Rancho Frontera and the other projects were asked to do an EIR by the Planning Commission but the City Council directed that negative declarations be approved. It has not been decided if Highway 98 will be widened or if it will be an arterial street.

Mr. Tom DuBose stated that when the conditions are finalized they will agree to a mitigated agreement. They feel they have identified all the impacts. The Council does not want retention basins they will do a drain that will utilize the strout.

A motion was made by Mayor Pro Tem Renison, seconded by Councilman Grijalva, and passed unanimously, to approve a negative declaration, drainage/traffic study and sole use of parks for the Bravo/Rodiles project and that this be brought back for ratification.

Planning Director stated the Negative Declaration notice will be circulated to affected agencies. After the responses come back a public hearing will be set to approve the rezone, the tentative map and the specific plan.

Mayor Carrillo stated they need to have a regional park in that area. Public Works Director stated they need to accept the conditions that will provide for a regional park and eliminate neighborhood parks. Mayor Carrillo stated that West Zapata Street is one of the worst parks, it is also a retention basin that is why he is opposed to having retention basins as parks.

INFORMATION ITEMS:

The City Council acknowledged receipt of the following information items: 2000 Urban Water Management Plan for Imperial Irrigation District and the cities of Brawley, Calexico and El Centro; Investment Committee meeting report.

ADJOURNMENT.

There being no further business the meeting adjourned at 9:00 p.m.

Victor M. Carrillo, Mayor

Attest:

Lourdes Cordova, City Clerk

Cordova 9/13/01
DATE

I HEREBY CERTIFY THAT THIS IS A TRUE COPY OF THE OFFICIAL RECORD

REGULAR BOARD MEETING
IMPERIAL IRRIGATION DISTRICT

1285 BROADWAY STREET, EL CENTRO, CA
TUESDAY, JULY 24, 2001

Directors present: Andy Horne, Bruce Kuhn, Lloyd Allen, Stella Mendoza, and Rudy Maldonado
Directors absent: (President Horne left at 7:30 p.m.)

CLOSED SESSION – 2:00 p.m.
Review the performance of the General Manager and Internal Auditor, address several lawsuits, discuss with Legal Counsel three issues of potential litigation, and confer with negotiators on possible transfer of conserved water.

OPEN SESSION – 5:00 p.m.
Ron Hull led us in the Pledge of Allegiance to the Flag.

REPORT ACTIONS TAKEN IN CLOSED SESSION, IF ANY
None.

PRESENTATIONS
President Horne and General Manager Silva recognized Jose Montoya as Employee of the Month for August 2001.

President Horne and General Manager Silva also recognized 18 employees for their loyal and dedicated service to the Imperial Irrigation District, ranging from 10 to 35 years for a combined total of 320 worker-years.

BOARD MEMBER COMMENTS
Director Maldonado asked if the Board would send letters of support for those individuals or companies who are pursuing renewable resources such as ethanol production in Imperial Valley. One such entity is Imperial Bioresources, LLC. Such operations would bring new jobs to the valley and provide IID an opportunity to buy reliable power. The Board asked the General Manager to follow through on this request.

President Horne:
(1) Toured the San Juan Unit 3 Plant and their coal mine in New Mexico. IID owns a share of that plant.
(2) Attended the Water Education Foundation conference on water law and policy. Our legal counsel, John Carter, was one of the speakers on the panel discussing the quantification issue and the 4.4 plan.

CHIEF LEGAL COUNSEL COMMENTS – John Carter
Orlando Foote, sitting in for Mr. Carter, reported on an action taken by the Board of Supervisors. They approved today air quality rules that would authorize IID in the event of a curtailment of natural gas (emergency situation) to burn fuel oil at its plants. This action is an enhanced desire on the part of the County to work with IID.

GENERAL MANAGER COMMENTS – Jesse Silva
Executive Officer Brad Luckey reported that (1) the state budget is $101 billion; and (2) any public municipal utility that sold power to the Independent System Operator (ISO) will have to refund customers $8 per MWH.

No 7
Urban Water Management Plan Release Draft

Moved by Director Kuhn, seconded by Director Allen, that the Board authorize the release of an Urban Water Management Plan for public review when prepared, and that a date to hold a public hearing be decided upon at the next board meeting.

Motion carried, with Director Maldonado out of the room and President Horne absent.

No. 8
Revised Reg. 39 Agricultural Tailwater Structures

Moved by Director Kuhn, seconded by Director Allen, that the Board approve the following changes, as submitted by staff and reviewed by the Water Conservation Advisory Board, to Water Regulation 39, *"Agricultural Tailwater Structures":*

- IID will notify the landowner/water user of a non-compliant tailwater box.
- A 45-day replacement period is provided instead of six months.
- If not replaced by the end of the 45-day period, water is discontinued or refused per Water Regulation 10, Part (B), "Noncompliance with Rules.

Motion carried, with Director Maldonado out of the room and President Horne absent

No. 9
AAC Lining DWR Funding Agreement

Moved by Director Allen, seconded by Director Kuhn, that the Board authorize staff to enter into an agreement with the Department of Water Resources to provide $126 million in funding for the All-American Canal Lining Project (23 miles), and approve the format of the DWR Standard Agreement form 627 which will be used with this Project. The IID Legal Department has reviewed the agreement.

Motion carried, with Director Maldonado out of the room and President Horne absent.

No. 10
Resolution No. 14-2001 SW Border Economic Dev. Pilot Program

Moved by Director Kuhn, seconded by Director Allen, that the Board adopt **Resolution No. 14-2001** captioned, *"Resolution of the Imperial Irrigation District Establishing IID's Intent to Participate in a Funding Application to the North American Development Bank for the Purposes of Studying Mutually Beneficial Partnerships Including, but not Limited to Regional Water and Wastewater Treatment Facilities."*

Motion carried, with Director Maldonado out of the room and President Horne absent.

APPENDIX G

Pending Approval Processes

As the Imperial Irrigation District finalizes this plan, October 2001, The cities of Brawley and El Centro are still in the process of finalizing their plans.

Staff from the City of Brawley plan to take the *2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro* to the Brawley City Council November 6, 2001.

Staff from the City of El Centro plan to take the *2000 Urban Water Management Plan for Imperial Irrigation District and the Cities of Brawley, Calexico, and El Centro* to the El Centro City Council the first meeting in November 2001 and request a public hearing.